



Billing Code 4310–55

## **DEPARTMENT OF THE INTERIOR**

### **Fish and Wildlife Service**

#### **50 CFR Part 17**

**[Docket No. FWS–R8–ES–2012–0074]**

**[4500030113]**

**RIN 1018–AY07**

### **Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Sierra Nevada Yellow-legged Frog, the Northern Distinct Population Segment of the Mountain Yellow-legged Frog, and the Yosemite Toad**

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Proposed rule.

**SUMMARY:** We, the U.S. Fish and Wildlife Service, propose to designate critical

habitat for the Sierra Nevada yellow-legged frog, the northern distinct population segment (DPS) (populations that occur north of the Tehachapi Mountains) of the mountain yellow-legged frog, and the Yosemite toad under the Endangered Species Act of 1973, as amended (Act). In total, we propose to designate as critical habitat approximately 447,341 hectares (1,105,400 acres) for the Sierra Nevada yellow-legged frog in Butte, Plumas, Lassen, Sierra, Nevada, Placer, El Dorado, Amador, Calaveras, Alpine, Mariposa, Mono, Madera, Tuolumne, Fresno, and Inyo Counties, California; approximately 89,637 hectares (221,498 acres) for the northern DPS of the mountain yellow-legged frog in Fresno and Tulare Counties, California; and approximately 303,889 hectares (750,926 acres) for the Yosemite toad in Alpine, Tuolumne, Mono, Mariposa, Madera, Fresno, and Inyo Counties, California.

**DATES:** We will accept comments received or postmarked on or before **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

Comments submitted electronically using the Federal eRulemaking Portal (see **ADDRESSES** below) must be received by 11:59 p.m. Eastern Time on the closing date.

We must receive requests for public hearings, in writing, at the address shown in the

**FOR FURTHER INFORMATION CONTACT** section by **[INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

**ADDRESSES:** You may submit comments by one of the following methods:

- (1) *Electronically:* Go to the Federal eRulemaking Portal:

<http://www.regulations.gov>. In the Search box, enter Docket No. FWS–R8–ES–2012–0074, which is the docket number for this rulemaking. Then, in the Search panel on the left side of the screen, under the Document Type heading, click on the Proposed Rules link to locate this document. You may submit a comment by clicking on “Comment Now!”

(2) *By hard copy*: Submit by U.S. mail or hand-delivery to: Public Comments Processing, Attn: FWS–R8–ES–2012–0074; Division of Policy and Directives Management; U.S. Fish and Wildlife Service; 4401 N. Fairfax Drive, MS 2042–PDM; Arlington, VA 22203.

We request that you send comments **only** by the methods described above. We will post all comments on <http://www.regulations.gov>. This generally means that we will post any personal information you provide us (see **Information Requested** below for more information).

The coordinates or plot points or both from which the maps are generated are included in the administrative record for this critical habitat designation and are available at <http://www.fws.gov/sacramento>, [www.regulations.gov](http://www.regulations.gov) at Docket No. FWS–R8–ES–2012–0074, and at the Sacramento Fish and Wildlife Office (see FOR FURTHER INFORMATION CONTACT). Any additional tools or supporting information that we may develop for this critical habitat designation will also be available at the Fish and Wildlife Service website and Field Office set out above, and may also be included in the

preamble and/or at [www.regulations.gov](http://www.regulations.gov).

**FOR FURTHER INFORMATION CONTACT:** Jan Knight, Acting Field Supervisor, U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office, 2800 Cottage Way Room W-2605, Sacramento CA 95825; by telephone 916-414-6600; or by facsimile 916-414-6712. Persons who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 800-877-8339.

## **SUPPLEMENTARY INFORMATION:**

### **Executive Summary**

**Why we need to publish a rule.** Under the Act, critical habitat shall be designated, to the maximum extent prudent and determinable, for any species determined to be an endangered or threatened species under the Act. Designations and revisions of critical habitat can only be completed by issuing a rule.

**This rule proposes to designate critical habitat for the Sierra Nevada yellow-legged frog, the northern distinct population segment of the mountain yellow-legged frog, and the Yosemite toad.**

- We are proposing critical habitat for the Sierra Nevada yellow-legged frog under the Endangered Species Act. In total, approximately 447,341 hectares (1,105,400 acres) are being proposed for designation as critical habitat in Butte, Plumas, Lassen, Sierra, Nevada, Placer, El Dorado, Amador, Calaveras, Alpine, Mariposa,

Mono, Madera, Tuolumne, Fresno, and Inyo Counties, California.

- We are proposing critical habitat for the northern DPS of the mountain yellow-legged frog under the Endangered Species Act. In total, approximately 89,637 hectares (221,498 acres) are being proposed for designation as critical habitat in Fresno and Tulare Counties, California.
- We are proposing critical habitat for the Yosemite toad under the Endangered Species Act. In total, approximately 303,889 hectares (750,926 acres) are being proposed for designation as critical habitat in Alpine, Tuolumne, Mono, Mariposa, Madera, Fresno, and Inyo Counties, California.

**The basis for our action.** Under the Act, any species that is determined to be a threatened or endangered species shall, to the maximum extent prudent and determinable, have habitat designated that is considered to be critical habitat. Section 4(b)(2) of the Endangered Species Act states that the Secretary shall designate and make revisions to critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless he determines, based on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species.

**We will seek peer review.** We are seeking comments from knowledgeable

individuals with scientific expertise to review our analysis of the best available science and application of that science and to provide any additional scientific information to improve this proposed rule. Because we will consider all comments and information received during the comment period, our final determination may differ from this proposal.

### **Information Requested**

We intend that any final action resulting from this proposed rule will be based on the best scientific data available and be as accurate and as effective as possible.

Therefore, we request comments or information from other concerned governmental agencies, Native American tribes, the scientific community, industry, or any other interested parties concerning this proposed rule. We particularly seek comments concerning:

(1) The reasons why we should or should not designate habitat as critical habitat under section 4 of the Act (16 U.S.C. 1531 *et seq.*), including whether there are threats to these species from human activity, the degree of which can be expected to increase due to the designation, and whether that increase in threat outweighs the benefit of designation such that the designation of critical habitat is not prudent.

(2) Specific information on:

(a) The amount and distribution of Sierra Nevada yellow-legged frog, the

northern DPS of the mountain yellow-legged frog, and Yosemite toad, and their habitats;

(b) What may constitute “physical or biological features essential to the conservation of the species,” within the geographical range currently occupied by the species;

(c) Where these features are currently found;

(d) Whether any of these features may require special management considerations or protection;

(e) What areas occupied at the time of listing and that contain features essential to the conservation of these species should be included in the designation, and why; and

(f) What areas not occupied at the time of listing are essential for the conservation of these species, and why.

(3) Land use designations and current or planned activities in the areas occupied by the species or proposed to be designated as critical habitat, and possible impacts of these activities on these species and their proposed critical habitats.

(4) Information on the projected and reasonably likely impacts of climate change on the Sierra Nevada yellow-legged frog, the northern DPS of the mountain yellow-legged frog, and the Yosemite toad, and on their proposed critical habitats. We also seek information on special management considerations or protection that may be needed in the proposed critical habitat areas, including management for the potential effects of climate change.

(5) Any probable economic, national security, or other relevant impacts that may result from designating any area as critical habitat that may be included in the final designation. We are particularly interested in any impacts on small entities, and the benefits of including or excluding areas from the proposed designation that are subject to these impacts.

(6) Whether any specific areas proposed for critical habitat designation should be considered for exclusion under section 4(b)(2) of the Act, and whether the benefits of potentially excluding any specific area outweigh the benefits of including that area under section 4(b)(2) of the Act.

(7) Whether our approach to designating critical habitat could be improved or modified in any way to provide for greater public participation and understanding, or to assist us in accommodating public concerns and comments.

(8) The likelihood of adverse social reactions to the designation of critical habitat and how the consequences of such reactions, if likely to occur, would relate to the conservation and regulatory benefits of the proposed critical habitat designation.

You may submit your comments and materials concerning this proposed rule by one of the methods listed in the **ADDRESSES** section. We request that you send comments **only** by the methods described in the **ADDRESSES** section.



We will post your entire comment—including your personal identifying information—on <http://www.regulations.gov>. You may request at the top of your document that we withhold personal information such as your street address, phone number, or e-mail address from public review; however, we cannot guarantee that we will be able to do so.

Comments and materials we receive, as well as supporting documentation we used in preparing this proposed rule, will be available for public inspection on <http://www.regulations.gov>, or by appointment, during normal business hours, at the U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

### **Previous Federal Actions**

Please see the proposed listing rule published elsewhere in today's **Federal Register** for a complete history of previous Federal actions.

On September 9, 2011, the U.S. District Court for the District of Columbia approved a settlement agreement laying out a multi-year listing work plan for addressing candidate species, including the Sierra Nevada yellow-legged frog, the northern distinct population segment of the mountain yellow-legged frog, and the Yosemite toad, . As part of this agreement, the Service agreed to publish a proposed rule in the Federal Register on whether to list these species and designate critical habitat by September 30, 2013. This is the proposed rule to designate critical habitat for these species.

## Background

It is our intent to discuss below only those topics directly relevant to the designation of critical habitat for the Sierra Nevada yellow-legged frog, the northern DPS of the mountain yellow-legged frog and the Yosemite toad in this section of the proposed rule. For more information on these species' taxonomy, life history, habitat, and population descriptions, refer to the 12-month finding published January 25, 2007 (72 FR 34557) and the proposed listing rule published elsewhere in **today's Federal Register** for the Sierra Nevada yellow-legged frog and the northern DPS of the mountain yellow-legged frog and the 12-month finding published in December 10, 2002 (67 FR 75834) and the proposed listing rule published elsewhere in **today's Federal Register** for the Yosemite toad.

Critical habitat is defined in section 3 of the Act as:

- (1) The specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the Act, on which are found those physical or biological features
  - (a) Essential to the conservation of the species and
  - (b) Which may require special management considerations or protection; and
- (2) specific areas outside the geographical area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the

species.

Conservation, as defined under section 3 of the Act, means to use and the use of all methods and procedures that are necessary to bring an endangered or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

Critical habitat receives protection under section 7 of the Act through the requirement that Federal agencies ensure, in consultation with the Service, that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of critical habitat.

The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation does not allow the government or public to access private lands. Such designation does not require implementation of restoration, recovery, or enhancement measures by non-Federal landowners. Where a landowner requests Federal agency funding or authorization for an action that may affect a listed species or critical habitat, the consultation requirements of section 7(a)(2) of the Act would apply, but even in the event

of a destruction or adverse modification finding, the obligation of the Federal action agency and the landowner is not to restore or recover the species, but to implement reasonable and prudent alternatives to avoid destruction or adverse modification of critical habitat.

Under the first prong of the Act's definition of critical habitat, areas within the geographic area occupied by the species at the time of listing are included in a critical habitat designation if they contain physical or biological features (1) that are essential to the conservation of the species and (2) that may require special management considerations or protection. For these areas, critical habitat designations identify, to the extent known using the best scientific and commercial data available, those physical or biological features essential to the conservation of the species (such as space, food, cover, and protected habitat). In identifying those physical and biological features within an area, we focus on the principal biological or physical constituent elements (primary constituent elements (PCEs), such as roost sites, nesting grounds, seasonal wetlands, water quality, tide, soil type) that are essential to the conservation of the species.

Under the second prong of the Act's definition of critical habitat, we can designate critical habitat in areas outside the geographic area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. For example, an area currently occupied by the species but that was not occupied at the time of listing may be essential to the conservation of the species and may be included in the critical habitat designation. We designate critical habitat in areas

outside the geographic area occupied by a species only when a designation limited to its present range would be inadequate to ensure the conservation of the species.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific data available. Further, our Policy on Information Standards Under the Endangered Species Act (published in the **Federal Register** on July 1, 1994 (59 FR 34271)), the Information Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106–554; H.R. 5658)), and our associated Information Quality Guidelines provide criteria, establish procedures, and provide guidance to ensure that our decisions are based on the best scientific data available. They require our biologists, to the extent consistent with the Act and with the use of the best scientific data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat.

When we are determining which areas we should designate as critical habitat, our primary source of information is generally the information developed during the listing process for the species. Additional information sources may include articles in peer-reviewed journals, conservation plans developed by States and counties, scientific status surveys and studies, biological assessments, other unpublished materials, or experts' opinions or personal knowledge.

Habitat is dynamic, and species may move from one area to another over time. We recognize that critical habitat designated at a particular point in time may not include

all of the habitat areas that we may later determine are necessary for the recovery of the species. For these reasons, a critical habitat designation does not signal that habitat outside the designated area is unimportant or may not be needed for recovery of the species. Areas that are important to the conservation of the species, both inside and outside the critical habitat designation, will continue to be subject to: (1) Conservation actions implemented under section 7(a)(1) of the Act, (2) regulatory protections afforded by the requirement in section 7(a)(2) of the Act for Federal agencies to ensure their actions are not likely to jeopardize the continued existence of any endangered or threatened species, and (3) the prohibitions of section 9 of the Act if actions occurring in these areas may affect the species. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. These protections and conservation tools will continue to contribute to recovery of these species. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans (HCPs), or other species conservation planning efforts if new information available at the time of these planning efforts calls for a different outcome.

#### Prudency Determination

Section 4(a)(3) of the Act, as amended, and implementing regulations (50 CFR 424.12), require that, to the maximum extent prudent and determinable, the Secretary designate critical habitat at the time the species is determined to be endangered or

threatened. Our regulations (50 CFR 424.12(a)(1)) state that the designation of critical habitat is not prudent when one or both of the following situations exist: (1) The species is threatened by taking or other human activity, and identification of critical habitat can be expected to increase the degree of threat to the species, or (2) such designation of critical habitat would not be beneficial to the species.

There is currently no imminent threat of take attributed to collection or vandalism under Factor B for these species, and identification and mapping of critical habitat is not expected to initiate any such threat. In the absence of finding that the designation of critical habitat would increase threats to a species, if there are any benefits to a critical habitat designation, then a prudent finding is warranted. Here, the potential benefits of designation include: (1) Triggering consultation under section 7 of the Act, in new areas for actions in which there may be a Federal nexus where it would not otherwise occur because, for example, it is or has become unoccupied or the occupancy is in question; (2) focusing conservation activities on the most essential features and areas; (3) providing educational benefits to State or county governments or private entities; and (4) preventing people from causing inadvertent harm to the species. Therefore, because we have determined that the designation of critical habitat will not likely increase the degree of threat to the species and may provide some measure of benefit, we find that designation of critical habitat is prudent for the Sierra Nevada yellow-legged frog, northern DPS of the mountain yellow-legged frog and the Yosemite toad.

Critical Habitat Determinability

Having determined that designation is prudent, under section 4(a)(3) of the Act we must find whether critical habitat for the species is determinable. Our regulations at 50 CFR 424.12(a)(2) state that critical habitat is not determinable when one or both of the following situations exist:

- (i) Information sufficient to perform required analyses of the impacts of the designation is lacking, or
- (ii) The biological needs of the species are not sufficiently well known to permit identification of an area as critical habitat. When critical habitat is not determinable, the Act allows the Service an additional year to publish a critical habitat designation (16 U.S.C. 1533(b)(6)(C)(ii)).

We reviewed the available information pertaining to the biological needs of the species and habitat characteristics where the species is located. This and other information represent the best scientific data available and led us to conclude that the designation of critical habitat is determinable for the Sierra Nevada yellow-legged frog, northern DPS of the mountain yellow-legged frog and the Yosemite toad.

#### *Physical or Biological Features*

In accordance with sections 3(5)(A)(i) and 4(b)(1)(A) of the Act and regulations at 50 CFR 424.12, in determining which areas within the geographic area occupied by the species at the time of listing to designate as critical habitat, we consider the physical or



biological features that are essential to the conservation of the species and which may require special management considerations or protection. These include, but are not limited to:

- (1) Space for individual and population growth and for normal behavior;
- (2) Food, water, air, light, minerals, or other nutritional or physiological requirements;
- (3) Cover or shelter;
- (4) Sites for breeding, reproduction, or rearing (or development) of offspring; and
- (5) Habitats that are protected from disturbance or are representative of the historical, geographic, and ecological distributions of a species.

We derive the specific physical or biological features required for the Sierra Nevada yellow-legged frog, the northern DPS of the mountain yellow-legged frog, and the Yosemite toad from studies of the species' habitat, ecology, and life history as described below. We have determined that the following physical or biological features are essential to the Sierra Nevada yellow-legged frog, the northern DPS of the mountain yellow-legged frog, and the Yosemite toad:

#### *Mountain Yellow-legged Frog Complex*

##### Space for Individual and Population Growth and for Normal Behavior

Mountain yellow-legged frogs are highly aquatic (Stebbins 1951, p. 340; Mullally

and Cunningham 1956a, p. 191; Bradford *et al.* 1993, p. 886). Although they tend to stay closely associated with high-elevation water bodies, they are capable of longer distance travel, whether along stream courses or over land in between breeding, foraging, and overwintering habitat within lake complexes. Individuals may use different water bodies or different areas within the same water body for breeding, foraging, and overwintering (Matthews and Pope 1999, pp. 620–623; Wengert 2008, p. 18). Within water bodies, adults and tadpoles prefer shallower areas and shelves (Mullally and Cunningham 1956a, p. 191; Jennings and Hayes 1994, p. 77) with solar exposure (features rendering these areas warmer (Bradford 1984, p. 973), which also make them more suitable for prey species). High-elevation habitats tend to have lower relative productivity (suggesting populations are often resource limited), as sufficient space is also needed to avoid competition with other frogs and tadpoles for limited food resources.

Therefore, based on the information above, we identify high-elevation water bodies, lake and pond complexes, and adjacent lands within and proximate to water bodies utilized by extant frog metapopulations (mountain lakes and streams) to be a physical or biological feature needed by mountain yellow-legged frogs to provide space for their individual and population growth and for normal behavior.

#### Food, Water, Air, Light, Minerals, or Other Nutritional or Physiological Requirements

Adult mountain yellow-legged frogs are thought to feed preferentially upon terrestrial insects and adult stages of aquatic insects while on the shore and in shallow

water (Bradford 1983, p. 1171); however, feeding studies on mountain yellow-legged frogs in the Sierra Nevada are limited. Remains found inside the stomachs of mountain yellow-legged frogs in southern California represented a wide variety of invertebrates, including beetles, ants, bees, wasps, flies, true bugs, and dragonflies (Long 1970, p. 7). Larger frogs have been observed to eat more aquatic true bugs (Order Hemiptera) (Jennings and Hayes 1994, p. 77). Adult mountain yellow-legged frogs have also been found to eat Yosemite toad tadpoles (Mullally 1953, p. 183; Zeiner *et al.* 1988, p. 88) and Pacific treefrog tadpoles (Pope 1999b, p. 163–164), and they are also cannibalistic (Heller 1960, p. 127; Vredenburg *et al.* 2005, p. 565).

Mountain yellow-legged frog tadpoles graze on benthic detritus, algae, and diatoms along rocky bottoms in streams, lakes, and ponds (Bradford 1983, p. 1171; Zeiner *et al.* 1988, p. 88). Tadpoles have also been observed cannibalizing eggs (Vredenburg 2000, p. 170) and feeding on the carcasses of dead metamorphosed frogs (Vredenburg *et al.* 2005, p. 565). Other species may compete with frogs and tadpoles for limited food resources. Introduced fishes are the primary competitors, reducing the available prey base for mountain yellow-legged frogs (Finlay and Vredenburg 2007, p. 2187).

The ecosystems utilized by mountain yellow-legged frogs have inherent community dynamics that sustain the food web. Habitats, therefore, must maintain sufficient water quality to sustain the frogs within the tolerance range of healthy individual frogs, as well as acceptable ranges for maintaining the underlying ecological

community. These key physical parameters include pH, temperature, nutrients, and uncontaminated water. The high-elevation habitats that support mountain yellow-legged frogs require sufficient sunlight to warm the water where they congregate, and to allow subadults and adults to sun themselves

Persistence of frog populations is dependent on a sufficient volume of water feeding into their habitats to provide the aquatic conditions necessary to sustain multiyear tadpoles through metamorphosis. This makes the hydrologic basin (or catchment area) a critical source of water for supplying downgradient habitats. The catchment area sustains water levels in lakes and streams used by mountain yellow-legged frogs via surface and ground water transport, which are crucially important for maintaining frog habitat.

Therefore, based on the information above, we identify sufficient quantity and quality of source waters that support habitat used by mountain yellow-legged frogs (including the balance of constituents to support a sustainable food web with a sufficient prey base), absence of competition from introduced fishes, exposure to solar radiation, and shallow (warmer) areas or shelves within ponds or pools to be a physical or biological feature needed by mountain yellow-legged frogs to provide for their nutritional and physiological requirements.

#### Cover or Shelter

Mountain yellow-legged frogs require conditions that allow for overwinter

survival, including lakes or pools within streams that do not freeze to the bottom, or refugia within or adjacent to such systems (such as underwater crevices) so that overwintering tadpoles and frogs do not freeze or experience anoxic conditions during their winter dormancy period (Bradford 1983, pp. 1173–1179; Matthews and Pope 1999, pp. 622–623; Pope 1999a, pp. 42–43; Vredenburg *et al.* 2005, p. 565). Cover for adults to protect themselves from terrestrial and avian predators is also an important habitat feature, especially in cases where aquatic habitat itself does not provide adequate protection from terrestrial or avian predators due to insufficient water depth. Although cover within aquatic habitat may be important in the short term to avoid fish predation, the observation of low coexistence between introduced trout and frog populations (Knapp 1996, pp. 1–44) suggests that cover alone is insufficient to preclude extirpation by fish predation and competition.

Therefore, based on the information above, we identify refuge from lethal overwintering conditions (freezing and anoxia), physical cover from avian and terrestrial predators, and lack of predation by introduced fishes to be a physical or biological feature needed by the mountain yellow-legged frog to provide cover and shelter.

#### Sites for Breeding, Reproduction, or Rearing (or Development) of Offspring

As described in the proposed listing determination published elsewhere in today's **Federal Register**, mountain yellow-legged frogs are known to utilize habitats differently depending on season (Matthews and Pope 1999, pp. 620–623; Wengert 2008, p.18).

Reproduction and rearing requires water bodies (or adequate refugia) that are sufficiently deep that they do not dry out in summer or freeze through in winter (except infrequently). Therefore, the conditions within the catchment for these habitats must be maintained such that sufficient volume and timing of snowmelt and adequate transport of precipitation to these rearing water bodies sustain the appropriate balance of conditions to maintain mountain yellow-legged frog life-history needs. Conditions that determine the depth, siltation rates, or persistence of these water bodies are key determinants of habitat functionality (within tolerance ranges of each particular system). Finally, pre-breeding adult frogs need access to these water bodies in cases where these populations are utilizing different breeding and nonbreeding habitat.

Therefore, based on the information above, we find the persistence of breeding and rearing habitats and access to and from seasonal habitat areas (whether via aquatic or terrestrial migration) to be a physical or biological feature needed by the mountain yellow-legged frog to allow successful reproduction and development of offspring.

#### Habitats Protected from Disturbance or Representative of the Historical, Geographic, and Ecological Distributions of the Species

In addition to migration routes (areas that provide back and forth between habitat patches within the metapopulation) without impediments across the landscape between proximal ponds within the ranges of functional metapopulations, mountain yellow-legged frogs require dispersal corridors (areas for recolonization and range expansion of further

areas) to reestablish populations in extirpated areas within its current range to provide ecological and geographic resiliency (USFS *et al.* 2009, p. 35). Maintenance and reestablishment of such populations across a diversity of ecological landscapes is necessary to provide sufficient protection against changing environmental circumstances (such as climate change). This provides functional redundancy to safeguard against stochastic events (such as wildfires), but this redundancy also may be necessary as different regions or microclimates respond to changing climate conditions.

Establishing or maintaining populations across a broad geographic area spreads out the risk to individual populations across the range of the species, thereby conferring species resilience. Finally, protecting a wide range of habitats across the occupied range of the species simultaneously maintains genetic diversity of the species, which protects the underlying integrity of the major genetic clades (Vredenburg *et al.* 2007, pp. 370–371), whose persistence is important to the ecological fitness of these species as a whole (Allentoft and O’Brien 2010 pp. 47–71; Johansson *et al.* 2007, pp. 2693–2700).

Therefore, based on the information above, we identify dispersal routes (generally fish free), habitat connectivity, and a diversity of high-quality habitats across multiple watersheds throughout the geographic extent of the species’ ranges and sufficiently representative of the major genetic clades to be a physical or biological feature needed by the mountain yellow-legged frog.

*Yosemite Toad*

## Space for Individual and Population Growth and for Normal Behavior

As summarized in the proposed listing determination published elsewhere in today's **Federal Register**, the Yosemite toad is commonly associated with wet meadow habitats in the Sierra Nevada of California. It occupies aquatic, riparian, and upland habitat throughout a majority of its range. Suitable habitat for the Yosemite toad is created and maintained by the natural hydrologic and ecological processes that occur within the aquatic breeding habitats and adjacent upland areas. Yosemite toads have been documented breeding in wet meadows and slow-flowing streams (Jennings and Hayes 1994, pp. 50–53), shallow ponds, and shallow areas of lakes (Mullally 1953, pp. 182–183). Upland habitat use varies among the different sexes and life stages of the toad (Morton and Pereyra 2010, p. 391); however, all Yosemite toads utilize areas within at least 850 m (2,789 ft) of breeding sites for foraging and overwintering, with juveniles predominantly overwintering in close proximity to breeding areas (Martin 2008, p. 154; Morton and Pereyra 2010, p. 391).

Yosemite toads must be able to move between aquatic breeding habitats, upland foraging sites, and overwintering areas. Yosemite toads have been documented to move a maximum of 1.26 km (0.78 mi) between breeding and upland habitats (Liang 2010, p. ii). Based on observational data from three previous studies, Liang *et al.* (2010, p. 6) estimated the maximum travel distance for the Yosemite toad to be 1.5 km (0.9 mi). Upland habitat used for foraging includes lush meadows with herbaceous vegetation



(Morton and Pereyra 2010, p. 390), alpine-dwarf scrub, red fir, lodgepole pine, and subalpine conifer vegetation types (Liang 2010, p. 81), and the edges of talus slopes (Morton and Pereyra 2010, p. 391).

Therefore, based on the information above, we identify both lentic (still) and lotic (flowing) water bodies, including meadows, and adjacent upland habitats with sufficient refugia (for example, logs, rocks) and overwintering habitat that provide space for normal behavior to be a physical or biological feature needed by Yosemite toads for their individual and population growth and for normal behavior.

#### Food, Water, Air, Light, Minerals, or Other Nutritional or Physiological Requirements

Little is known about the diet of Yosemite toad tadpoles. However, their diet presumably approximates that of related *Anaxyrus* species, and likely consists of microscopic algae, bacteria, and protozoans. Given their life history, it is logical to presume they are opportunistic generalists. Martin (1991, pp. 22–23) reports tadpoles foraging on detritus and plant materials (algae), but also identifies Yosemite toad tadpoles as potential opportunistic predators, having observed them feeding on the larvae of Pacific chorus frog and predaceous diving beetle, that may have been dead or live. The adult Yosemite toad diet comprises a large variety of insects, with Hymenoptera (ants, wasps, bees, sawflies, horntails) comprising the largest proportion of the summer prey base (Martin 1991, pp. 19–22).

The habitats utilized by the Yosemite toad have inherent community dynamics that sustain the food web. Habitats also must maintain sufficient water quality and moisture availability to sustain the toads throughout their life stages, so that key physical parameters within the tolerance range of healthy individual frogs, as well as acceptable ranges for maintaining the underlying ecological community, are maintained. These parameters include, but are not limited to, pH, temperature, precipitation, slope, aspect, vegetation, and lack of anthropogenic contaminants at harmful concentrations. Yosemite toad locations are associated with low slopes, specific vegetation types (wet meadow, alpine-dwarf shrub, montane chaparral, red fir, and subalpine conifer), and certain temperature regimes (Liang and Stohlgren 2011, p. 217).

Therefore, based on the information above, we identify sufficient quantities and quality of source waters, adequate prey resources and the balance of constituents to support the natural food web, low slopes, and specific vegetation communities to be a physical or biological feature needed by Yosemite toads to provide for their nutritional and physiological requirements.

#### Cover or Shelter

When not actively foraging, Yosemite toads take refuge under surface objects, including logs and rocks (Stebbins 1951, pp. 245–248; Karlstrom 1962, pp. 9–10), and in rodent burrows (Liang 2010, p. 95). Thus, areas of shelter interspersed with other moist environments, such as seeps and springs, are necessary. Yosemite toads also utilize

rodent burrows (Jennings and Hayes 1994, pp. 50–53), as well as cover under surface objects and below willows, for overwintering (Kagarise Sherman 1980, pers. obs., as cited in Martin 2008, p. 158).

Therefore, based on the information above, we identify surface objects, rodent burrows, and other cover or overwintering areas to be a physical or biological feature needed by the Yosemite toad to provide cover and shelter.

#### Sites for Breeding, Reproduction or Rearing (or Development) of Offspring

As summarized above, Yosemite toads are prolific breeders that lay their eggs at snowmelt. Suitable breeding and embryonic rearing habitat generally occurs in very shallow water at the edges of meadows or in slow-flowing runoff streams, but also consists of subalpine lentic and lotic habitats, including wet meadows, lakes, and small ponds, as well as shallow spring channels, side channels, and sloughs. Eggs typically hatch within 4 to 6 days (Karlstrom 1962, p. 19), with rearing through metamorphosis taking approximately 5 to 7 weeks after eggs are laid (USFS *et al.* 2009, p. 250). These times can vary depending on prey availability, temperature, and other abiotic factors.

The suitability of breeding habitat may vary from year to year due primarily to the amount of precipitation and local temperatures. Given the variability of habitats available for breeding, the high site fidelity of breeding toads, an opportunistic breeding strategy, as well as the importance of lotic systems during periods of low precipitation

(Roche *et al.* 2012, p. 60), Yosemite toads require a variety of aquatic habitats to successfully maintain populations.

Therefore, based on the information above, we identify both lentic and slow-moving lotic aquatic systems that provide sufficient temperature for hatching and that maintain sufficient water for metamorphosis (a minimum of 4 weeks) to be a physical or biological feature needed by the Yosemite toad to allow for successful reproduction and development of offspring.

#### Habitats Protected from Disturbance or Representative of the Historical, Geographic, and Ecological Distributions of the Species

In addition to migration routes without impediments between upland areas and breeding locations across the landscape, Yosemite toads require dispersal corridors to utilize a wide range of breeding habitats in order to provide ecological and geographic resiliency in the face of changing environmental circumstances (for example, climate). This provides functional redundancy to safeguard against stochastic events, such as wildfires, but also may be necessary as different regions or microclimates respond to changing climate conditions. Maintaining populations across a broad geographic extent also reduces the risk of a stochastic event that extirpates multiple populations across the range of the species, thereby conferring species resilience. Finally, protecting a wider range of habitats across the occupied range of the species can assist in maintaining the genetic diversity of the species.

Therefore, based on the information above, we identify dispersal routes, habitat connectivity, and a diversity of habitats throughout the geographic extent of the species' range that sufficiently represent the distribution of the species (including inherent genetic diversity) to be a physical or biological feature needed by the Yosemite toad.

#### Primary Constituent Elements (PCEs) for the Mountain Yellow-legged Frog Complex and Yosemite Toad

Under the Act and its implementing regulations, we are required to identify the physical or biological features essential to the conservation of the mountain yellow-legged frog complex and Yosemite toad in areas occupied at the time of listing (in this case, areas that are currently occupied), focusing on the features' PCEs. We consider PCEs to be the elements of physical or biological features that are essential to the conservation of the species.

#### *Mountain Yellow-legged Frog Complex*

Based on our current knowledge of the physical or biological features and habitat characteristics required to sustain the species' life-history processes, we determine that the PCEs specific to the Sierra Nevada and northern DPS of the mountain yellow-legged frogs are:

(1) *Aquatic habitat for breeding and rearing.* Habitat that consists of permanent water bodies, or those that are either hydrologically connected with, or close to, permanent water bodies, including, but not limited to, lakes, streams, rivers, tarns, perennial creeks (or permanent plunge pools within intermittent creeks), pools (such as a body of impounded water contained above a natural dam), and other forms of aquatic habitat. This habitat must:

(a) Be of sufficient depth not to freeze solid (to the bottom) during the winter (no less than 1.7 m (5.6 ft), but generally greater than 2.5 m (8.2 ft), and optimally 5 m (16.4 ft) or deeper (unless some other refuge from freezing is available)).

(b) Maintain a natural flow pattern, including periodic flooding, and have functional community dynamics in order to provide sufficient productivity and a prey base to support the growth and development of rearing tadpoles and metamorphs.

(c) Be free of fish and other introduced predators.

(d) Maintain water during the entire tadpole growth phase (a minimum of 2 years). During periods of drought, these breeding sites may not hold water long enough for individuals to complete metamorphosis, but they may still be considered essential breeding habitat if they provide sufficient habitat in most years to foster recruitment within the reproductive lifespan of individual adult frogs.

(e) Contain:

(i) Bank and pool substrates consisting of varying percentages of soil or silt, sand, gravel, cobble, rock, and boulders;

(ii) Shallower lake microhabitat with solar exposure to warm lake areas and to foster primary productivity of the food web;

(iii) Open gravel banks and rocks projecting above or just beneath the surface of the water for adult sunning posts;

(iv) Aquatic refugia, including pools with bank overhangs, downfall logs or branches, or rocks to provide cover from predators; and

(v) Sufficient food resources to provide for tadpole growth and development.

(2) *Aquatic nonbreeding habitat (including overwintering habitat)*. This habitat may contain the same characteristics as aquatic breeding and rearing habitat (often at the same locale), and may include lakes, ponds, tarns, streams, rivers, creeks, plunge pools within intermittent creeks, seeps, and springs that may not hold water long enough for the species to complete its aquatic life cycle. This habitat provides for shelter, foraging, predator avoidance, and aquatic dispersal of juvenile and adult mountain yellow-legged frogs. Aquatic nonbreeding habitat contains:

(a) Bank and pool substrates consisting of varying percentages of soil or silt, sand, gravel, cobble, rock, and boulders;

(b) Open gravel banks and rocks projecting above or just beneath the surface of the water for adult sunning posts;

(c) Aquatic refugia, including pools with bank overhangs, downfall logs or branches, or rocks to provide cover from predators;

(d) Sufficient food resources to provide for tadpole growth and development;

(e) Overwintering refuge, where thermal properties of the microhabitat protect hibernating life stages from winter freezing, such as crevices or holes within granite, in and near shore; and/or

(f) Streams, stream reaches, or wet meadow habitats that can function as corridors for movement between aquatic habitats used as breeding or foraging sites.

(3) *Upland areas.*

(a) Upland areas adjacent to or surrounding breeding and nonbreeding aquatic habitat that provide area for feeding and movement by mountain yellow-legged frogs.

(i) For stream habitats, this area extends 25 m (82 ft) from the bank or shoreline.

(ii) In areas that contain riparian habitat and upland vegetation (for example, mixed conifer, ponderosa pine, montane hardwood conifer, and montane riparian woodlands), the canopy overstory should be sufficiently thin (generally not to exceed 85 percent) to allow sunlight to reach the aquatic habitat and thereby provide basking areas for the species.

(iii) For areas between proximate (within 300m (984 ft)) water bodies (typical of some high mountain lake habitats), the upland area extends from the bank or shoreline between such water bodies.

(iv) Within mesic habitats such as lake and meadow systems, the entire area of physically contiguous or proximate habitat is suitable for dispersal and foraging.

(b) Upland areas (catchments) adjacent to and surrounding both breeding and nonbreeding aquatic habitat that provide for the natural hydrologic regime (water



quantity) of aquatic habitats. These upland areas should also allow for the maintenance of sufficient water quality to provide for the various life stages of the frog and its prey base.

### *Yosemite Toad*

Based on our current knowledge of the physical or biological features and habitat characteristics required to sustain the species' life-history processes, we determine that the PCEs specific to the Yosemite toad are:

(1) *Aquatic breeding habitat.* (a) This habitat consists of bodies of fresh water, including wet meadows, slow-moving streams, shallow ponds, spring systems, and shallow areas of lakes, that:

- (i) Are typically (or become) inundated during snowmelt,
- (ii) Hold water for a minimum of 5 weeks, and
- (iii) Contain sufficient food for tadpole development.

(b) During periods of drought or less than average rainfall, these breeding sites may not hold water long enough for individual Yosemite toads to complete metamorphosis, but they are still considered essential breeding habitat because they provide habitat in most years.

(2) *Upland areas.* (a) This habitat consists of areas adjacent to or surrounding breeding habitat up to a distance of 1.25 km (0.78 mi) in most cases (that is, depending

on surrounding landscape and dispersal barriers), including seeps, springheads, and areas that provide:

- (i) Sufficient cover (including rodent burrows, logs, rocks, and other surface objects) to provide summer refugia,
  - (ii) Foraging habitat,
  - (iii) Adequate prey resources,
  - (iv) Physical structure for predator avoidance,
  - (v) Overwintering refugia for juvenile and adult Yosemite toads,
  - (vi) Dispersal corridors between aquatic breeding habitats,
  - (vii) Dispersal corridors between breeding habitats and areas of suitable summer and winter refugia and foraging habitat, and/or
  - (viii) The natural hydrologic regime of aquatic habitats (the catchment).
- (b) These upland areas should also allow maintain sufficient water quality to provide for the various life stages of the Yosemite toad and its prey base.

With this proposed designation of critical habitat, we intend to identify the physical or biological features essential to the conservation of the species through the identification of the PCEs sufficient to support the life-history processes of the species. All units and subunits proposed for designation as critical habitat are currently occupied by Sierra Nevada mountain yellow-legged frogs, the northern DPS of the mountain yellow-legged frogs, or Yosemite toads, and contain the PCEs sufficient to support the life-history needs of the species.

### *Special Management Considerations or Protection*

When designating critical habitat, we assess whether the specific areas within the geographic area occupied by the species at the time of listing contain features that are essential to the conservation of the species and that may require special management considerations or protection.

The features essential to the conservation of the Sierra Nevada yellow-legged frog and northern DPS of the mountain yellow-legged frog may require special management considerations or protection to reduce the following threats: The persistence of introduced trout populations in essential habitat; the effects from water withdrawals and diversions; impacts associated with timber harvest and fuels reduction activities; impacts associated with livestock grazing; and intensive use by recreationists, including packstock camping and grazing.

Management activities that could ameliorate the threats described above include (but are not limited to) nonnative fish eradication; installation of fish barriers; modifications to fish stocking practices in certain water bodies; physical habitat restoration; and responsible management practices covering potentially incompatible activities, such as timber harvest and fuels management, water supply development and management, livestock and packstock grazing, and other recreational uses. These management practices will protect the PCEs for the mountain yellow-legged frog by reducing the stressors currently affecting population viability. Additionally, management

of critical habitat lands will help maintain the underlying habitat quality, foster recovery, and sustain populations currently in decline.

The features essential to the conservation of the Yosemite toad may require special management considerations or protection to reduce the following threats: Impacts associated with timber harvest and fuels reduction activity; impacts associated with livestock grazing; the spread of pathogens; and intensive use by recreationists, including packstock camping and grazing.

Management activities that could ameliorate the threats described above include (but are not limited to) physical habitat restoration and responsible management practices covering potentially incompatible beneficial uses such as timber harvest and fuels management, water supply development and management, livestock and packstock grazing, and other recreational uses. These management activities will protect the PCEs for the Yosemite toad by reducing the stressors currently affecting population viability. Additionally, management of critical habitat lands will help maintain or enhance the necessary environmental components, foster recovery, and sustain populations currently in decline.

#### *Criteria Used To Identify Critical Habitat*

As required by section 4(b)(2) of the Act, we use the best scientific data available to designate critical habitat. We review available information pertaining to the habitat

requirements of the species. In accordance with the Act and its implementing regulations at 50 CFR 424.12(e), we consider whether designating additional areas outside those currently occupied are necessary to ensure the conservation of the species.

In the case of the mountain yellow-legged frog complex and the Yosemite toad, we are proposing to designate critical habitat in areas within the geographic areas that are currently occupied by the species (see “Current Range and Distribution” section above). We are proposing to designate only geographic areas occupied by the species because the present geographic range is of similar extent to the historic range and therefore sufficient for the conservation of the species.

When determining proposed critical habitat boundaries, we made every effort to avoid including developed areas such as lands covered by buildings, pavement, and other structures because such lands lack physical or biological features for the mountain yellow-legged frog complex and the Yosemite toad. The scale of the maps we prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such developed lands. Any such lands inadvertently left inside critical habitat boundaries shown on the maps of this proposed rule have been excluded by text in the proposed rule and are not proposed for designation as critical habitat. Therefore, if the critical habitat is finalized as proposed, a Federal action involving these lands would not trigger section 7 consultation with respect to critical habitat and the requirement of no adverse modification unless the specific action would affect the physical or biological features in the adjacent critical habitat.

We are proposing for designation of critical habitat units that we have determined based on the best available scientific and commercial information are known to be currently occupied and contain the primary constituent elements of the physical or biological features essential to the conservation of the mountain yellow-legged frog complex and the Yosemite toad (under section 3(5)(A)(i) of the Act). These species exhibit a metapopulation life-history model, and although they tend towards high site-fidelity, individuals within these populations can and do move through suitable habitat to take advantage of changing conditions in a dynamic fashion through space and time. Additional areas outside the aquatic habitat within each unit or subunit were incorporated to assist in maintaining the hydrology of the aquatic features and to recognize the importance of dispersal between populations. In most instances, we aggregated areas we know to be occupied, together with areas needed for hydrologic function and dispersal into single units or subunits as described at 50 CFR 424.12(d) of our regulations. However, at any given moment, not all areas within each unit are being used by the species at all times, because, by definition, individuals within metapopulations move in space and time.

For the purposes of this proposed rule, we equate the geographical area occupied at the time of listing with the current range for each of the species (50 CFR 424.12). Therefore, we propose to designate specific areas within the geographical area occupied at the time of listing (see criteria below) that are essential to the conservation of the species and which may require special management considerations or protection pursuant

to section 3(5)(A)(i) of the Act. Within the current range of the species, to the best of our knowledge, some watersheds may or may not be actively utilized by extant frog populations, but we consider these areas to be occupied at the scale of the geographic range of the species. We use the term utilized to refer to the finer geographic scale at the watershed or survey locality level of resolution.

For this proposed rule, we completed the following basic steps to delineate critical habitat (specific methods follow below):

(1) We compiled all available data from observations of Sierra Nevada yellow-legged frog, northern DPS of the mountain yellow-legged frog, and Yosemite toad;

(2) We identified, based on the best available science, populations that are extant at the time of listing (current) versus those that are extirpated;

(3) We identified areas containing the components comprising the PCEs that may require special management considerations or protection;

(4) We circumscribed boundaries of potential critical habitat units based on the above information; and

(5) We removed all areas practicable that did not have the specific PCE components, and therefore are not considered essential to the conservation of the Sierra Nevada yellow-legged frog, northern DPS of the mountain yellow-legged frog, or Yosemite toad.

Specific criteria and methodology used to determine proposed critical habitat unit

boundaries are discussed by species below.

## Mountain Yellow-legged Frog Complex

### (1) Data Sources:

We obtained observational data from the following sources to include in our Geographic Information System (GIS) database for mountain yellow-legged frog: (a) Surveys of the National Parks within the range of the mountain yellow-legged frog, including information collected by R. Knapp and G. Fellers; (b) CDFG Sierra Lakes Inventory Project survey data; (c) SNAMPH survey data from the USFS; and (d) unpublished data collected by professional biologists during systematic surveys. Collectively, our survey data spanned August 1993 through September 2010. We cross-checked our database against the California Natural Diversity Data Base (CNDDB) reports, and we opted to utilize the above sources in lieu of the CNDDB data, due to the systematic nature of the surveys and their inherent quality control.

### (2) Occurrence Criteria:

We considered extant all localities where presence of living mountain yellow-legged frog has been confirmed since 1995, unless the last two (or more) consecutive surveys have found no individuals of any life stage. The 1995 cutoff date was selected because it reflects a logical break point given the underlying sample coverage and



relatively long lifespan of the frogs, and it is consistent with the recent status evaluation by CDFG, and therefore consistent with trend analyses compiled as part of that same effort (CDFG 2011, pp. 17–25). We considered the specific areas within the currently occupied geographic range of the species that include all higher quality habitat (see “(3) Habitat Unit Delineation,” below) that is contiguous to extant mountain yellow-legged frog populations. To protect remnant populations, areas where surveys confirmed the presence of mountain yellow-legged frog using the criteria above were generally considered necessary to conservation, including: All hydrologically connected waters within a distance of 3 km (1.9 mi), all areas overland within 300 m (984 ft) of survey locations, and the remainder of the watershed upgradient of that location. The 3-km (1.9-mi) boundary was derived from empirical data recording frog movements using radiotelemetry (see derivation below). Watersheds containing PCEs (indicating high-quality habitat), and with multiple and repeated positive survey records spread throughout the habitat area, were completely included. If two contiguous subareas within adjacent watersheds (one utilized and one not known to be utilized) had a predominance of PCEs indicating high-quality habitat, the habitat was included up to approximately 3 km (1.9 mi) of the survey location. These areas are considered essential to conservation and recovery, because they are presumed to be within the dispersal capacity of extant frog metapopulations or their progeny.

Two detailed movement studies using radiotelemetry have been completed for mountain yellow-legged frogs from which movement and home range data may be derived. One, focused on the mountain yellow-legged frog, occurred in a lake complex

in Dusy Basin in Kings Canyon National Park (Matthews and Pope 1999, pp. 615–624). The other included a stream-dwelling population of the Sierra Nevada yellow-legged frog in Plumas County, California (Wengert 2008, pp. 1–32). The movement patterns of the mountain yellow-legged frog within the lake complex included average distances moved within a 5-day period ranging from 43–145 m (141–476 ft) (Matthews and Pope, 1999, p. 620), with frogs traveling greater distances in September compared to August and October. This period reflects foraging and dispersal activity during the pre-wintering phase. Estimated average home ranges from this study ranged from 53 square meters (174 square ft) in October to more than 5,300 square meters (0.4 ac) in September (Matthews and Pope 1999, p. 620). The stream telemetry study of the Sierra Nevada yellow-legged frog recorded movement distances from 3–2,300 m (10–7,546 ft) (average was 485 m (1,591 ft)) within a single season (July through September), with as much as 3,300 m (10,827 ft) of linear stream habitat utilized by a single frog across seasons (Wengert 2008, p. 11). Home ranges in this study were estimated at 167,032 square meters (12.6 ac). The farthest reported distance of a mountain yellow-legged frog from water is 400 m (1,300 ft) (Vredenburg *et al.* 2005, p. 564). Frogs within habitat connected by lake networks or migration corridors along streams exhibit greater movement and home range. Frogs located in a mosaic of fewer lakes or with greater distances between areas with high habitat value are not expected to move as far over dry land. We used values within the range of empirical data to derive our boundaries, but erred towards the maxima, for reasons explained below.

These empirical results may not necessarily be applied across the range of the

mountain yellow-legged frog. It is likely that movement is largely a function of the underlying habitat mosaic particular to each location. Available data are limited to the two studies of different species spanning distinct habitat types. Therefore, generalizations across the range are may not be inaccurate; however, two points are evident. First, although mountain yellow-legged frogs are known to be highly associated with aquatic habitat and to exhibit high site-fidelity (Stebbins 1951, p. 340; Mullally and Cunningham 1956a, p. 191; Bradford *et al.* 1993, p. 886; Pope 1999a, p. 45), they do have the capacity to move relatively large distances, even within a single season. Our criteria for deriving critical habitat units, therefore, must not only take into account dispersal behavior and home range, but also consider the underlying habitat mosaic (and site-specific data, where available) when defining final boundaries for critical habitat.

Another factor to consider when buffering home ranges is encounter probability within the habitat range (whether the point location where the surveyed frog is observed is at the center or edge of a home range). It is more likely that surveys will encounter individuals in their preferred habitat areas, especially when point counts are attributed to main lakes (and during the height of the breeding season, or closer to the overwintering season). Nevertheless, actual utilized habitat may be removed in time and space from point locations identified during one-time surveys. The underlying uncertainty associated with point encounters means that it is difficult, and possibly inaccurate, to utilize bounded home ranges from empirical data when you lack site-specific information regarding habitat use about the surveyed sample unit. Additionally, emigration and recolonization of extirpated sites require movement through habitat across generations,

which may venture well beyond estimated single-season home ranges or movement distances. Therefore, the estimates from the very limited field studies are available as guidelines, but we also use the nature and physical layout of underlying habitat features (or site-specific knowledge, where available) to better define critical habitat units.

Finally, these results remain as estimates from studies conducted in single localities. Measured distance movements and estimated home ranges from limited studies should not be the sole determinants in habitat unit delineation. The ability of frogs to move along good habitat corridors should also be considered. This is especially significant in light of the need for dispersal and recolonization of open habitat as the species recovers from declines that occurred before the cessation of fish stocking activity or in relation to the recent spread of Bd throughout the area. It is evident from the data that frogs can, over the course of a season (and certainly over a lifespan), move through several kilometers of habitat (if the intervening habitat is suitable).

Therefore, given observed dispersal ability from available data, we have determined as a general guideline that aquatic habitats associated with survey encounters (point estimates or the entirety of associated water bodies) and those within 3 km (1.9 mi) (approximating the upper bound of observed estimates of movement from all available data) along stream or meadow courses, and within 300 m (984 ft) overland (an intermediate value between the maximum observed distance traveled across dry land within a season) are included in the delineated habitat units, unless some other habitat parameter (as outlined in the PCEs above) indicates low habitat utility or practical

dispersal barriers such as high ridges or rough terrain. At a minimum, stream courses and the adjacent upland habitat up to a distance of 25 m (82 ft) are included (based on an estimate from empirical data in Wengert (2008, p. 13)). A maximum value was utilized here because habitat along stream courses must protect all frogs physically present and includes key features of habitat quality (see PCEs above).

### (3) Habitat Unit Delineation:

To identify areas containing the PCEs for mountain yellow-legged frogs that may require special management considerations or protection, we examined the current and historical locations of mountain yellow-legged frogs in relation to the State of California's CALWATER watershed classification system (version 2.2), using the smallest planning watersheds.

In order to circumscribe the boundaries of potential critical habitat, we adopted the CALWATER boundaries, where appropriate, and delineated boundaries based on currently occupied aquatic habitat, as well as historically occupied habitats within the current range of the species. Watershed boundaries or other topographic features were utilized as the boundary when they provided for the maintenance of the hydrology and water quality of the aquatic system. Additional areas were included in order to provide for the dispersal capacity of the frogs, as discussed above.

To further refine the boundaries, we obtained the MaxEnt 3.3.3e species

distribution model covering both the Sierra Nevada yellow-legged frog and the northern DPS of the mountain yellow-legged frog (CDFG 2011, pp. A-1–A-5; Knapp, unpubl. data). This model utilizes 10 environmental variables that were selected based on known physiological tolerances of the mountain yellow-legged frog to temperature and water availability. The variables used as model inputs included elevation, maximum elevation of unit watershed, slope, average annual temperature, average temperature of coldest quarter of the year, average temperature of the warmest month of the year, annual precipitation, precipitation during the driest quarter of the year, distance to water, and lake density. The model additionally allows for interactions among these variables, and can fit nonlinear relationships using a diversity of feature classes (CDFG 2011, pp. A-1–A-5).

The MaxEnt model renders a grid output with likelihood of frog occurrence, a practical index of habitat quality. This output was compared to 2,847 frog occurrence records to determine the fit of the model. The model derived by Dr. Knapp fit the data well. Area under the curve (AUC) values are a measure of model fit, where values of 0.5 are random and values approaching 1.0 are fully accounted for within the model. The model fit for the MaxEnt 3.3.3e species distribution model covering both the Sierra Nevada yellow-legged frog and the northern DPS of the mountain yellow-legged frog had AUC values of 0.916 (standard deviation (s.d.) = 0.002) and 0.964 (s.d. = 0.006), respectively.

Individual critical habitat units were constructed to reflect the balance of frog

dispersal ability and habitat use (in other words, based on movement distances), along with projections of habitat quality as expressed by the probability models (MaxEnt grid outputs) and other habitat parameters consistent with the PCEs defined above.

Specifically, we considered areas to be actively utilized if since 1995 frog survey records existed within 300 m (984 ft) overland, or within 3 km (1.9 mi) if connected by high-quality dispersal habitat (stream or high lake density habitat). In general, areas up-gradient from occupied water bodies (within the catchment) were circumscribed at the watershed boundary. Aquatic habitat of high quality within 3 km (1.9 mi) from extant survey records was included, along with areas necessary to protect the relevant PCEs. We circumscribed all habitats with MaxEnt model output of 0.4 and greater within utilized watersheds, but also extended boundaries to include stream courses, ridges, or watershed boundaries where appropriate to protect the relevant PCEs. The threshold value of 0.4 was utilized as an index for establishing the historical range by Knapp, as it incorporated most historic and current frog locations (CDFG 2011, p. A-3). Using the available data (CDFG *et al.* unpub. data), this figure accounted for approximately 90 percent of extant population habitat association using our occurrence criteria (1,504 of 1,674 survey records).

Where the MaxEnt 3.3.3e species distribution model indicated poor quality of intervening habitat in the mapped landscape within 3 km (1.9 mi) of survey records, we generally cropped these areas at dispersal barriers or watershed boundaries, but may have also followed streams or topographic features. To minimize human error from visual

interpolation of habitat units, we aggregated the high-quality habitat grids from the model output in ArcGIS using a neighbor distance within 1,000 m (3,281 ft), and we used this boundary to circumscribe model outputs when selecting this boundary parameter. The 1,000 m (3,281 ft) aggregating criterion most closely agreed with manual visual interpolation methods that minimized land area included during unit delineation.

If areas were contiguous to designated areas within utilized watersheds, we include the higher quality habitat of the adjacent watersheds with model ranking 0.4 or greater. These areas are essential if they are of sufficiently high habitat quality to be important for future dispersal, translocation, and restoration consistent with recovery needs. In general, for these “neighboring” watersheds, circumscribed habitat boundaries followed either the 0.4+ MaxEnt aggregate polygon boundary, stream courses, or topographic features that otherwise constituted natural dispersal barriers. Further, proposed unit designation does not include catchment areas necessary to protect relevant PCEs if the mapped area was greater than 3 km (1.9 mi) from a survey location. This lower protective standard was appropriate because these areas were beyond the outside bound of extant survey records, and our confidence that these areas are, or will be, utilized is lower.

We also used historical records in some instances to include proximate watersheds that may or may not be currently utilized within subareas of high habitat quality as an index of the utility of habitat essential to the conservation of the frogs. This methodology was adopted to compensate for any uncertainties in our underlying



scientific and site-specific knowledge of ecological features that indicate habitat quality. Unless significant changes have occurred on the landscape, an unutilized site confirmed by surveys to have historically supported frog populations likely contains more of the PCEs relative to one that has no historical records.

## Yosemite Toad

### (1) Data Sources:

We obtained observational data from the following sources to include in our GIS database for the Yosemite toad: (a) Surveys of the National Parks within the range of the Yosemite toad, including information collected by R. Knapp and G. Fellers; (b) survey data from each of the National Forests within the range of the species; (c) CDFG Sierra Lakes Inventory Project survey data; and (d) SNAMPH survey data from the USFS. We cross-checked the data received from each of these sources with information contained in the CNDDDB. Given that the data sources (a) through (d) are the result of systematic surveys, provide better survey coverage of the range of the Yosemite toad, and are based on observation data of personnel able to accurately identify the species, we opted to utilize the above sources in lieu of the CNDDDB data.

### (2) Occurrence Criteria:

We considered extant all localities where Yosemite toad has been detected since

2000. The 2000 date was used for several reasons: (1) Comprehensive surveys for Yosemite toad throughout its range were not conducted prior to 2000, so data prior to 2000 are limited; and (2) given the longevity of the species and the magnitude of threats, toad locations identified since 2000 are likely to contain extant populations.

We considered the occupied geographic range of the species to include all suitable habitats within dispersal distance and geographically contiguous to extant Yosemite toad populations. We delineated specific areas within the present range of the species that are known to be utilized as essential to the conservation of the species. To maintain genetic integrity and provide for sufficient range and distribution of the species, we identified areas with dense concentrations of Yosemite toad populations interconnected or interspersed among suitable breeding habitats and vegetation types, as well as populations on the edge of the range of the species. We also delineated specific areas to include dispersal and upland migration corridors.

Two movement studies using radiotelemetry have been completed for Yosemite toad from which migration distances may be derived. One study took place in the Highland Lakes on the Stanislaus National Forest (Martin 2008, pp. 98–113), and the other took place in the Bull Creek watershed on the Sierra National Forest (Liang 2010, p. 96). The maximum observed seasonal movement distances from breeding pools within the Highland Lakes area was 657 m (2,157 ft) (Martin 2008, p. 144), while the maximum at the Bull Creek watershed was 1,261 m (4,137 ft). Additionally, Liang *et al.* (2010, p. 6) utilized all available empirical data to derive a maximum movement distance estimate

from breeding locations to be 1,500 m (4,920 ft), which they utilized in their modeling efforts. Despite these reported dispersal distances, the results may not necessarily apply across the range of the species. It is likely that movement is largely a function of the habitat types particular to each location.

We may use the mean plus 1.96 times the standard error as an expression of the 95 percent confidence interval (Streiner 1996, pp. 498–502; Curran-Everett 2008, pp. 203–208) to estimate species-level movement behavior from such studies. Using this measure, we derive a confidence-bounded estimate for average distance moved in a single season based on the Liang study (2010, pp. 107–109) of 1,015 m (3,330 ft). We focused on the Liang study because it had a much larger sample size and likely captured greater variability within a population. However, given that Liang *et al.* (2010, p. 6) estimated and applied a maximum movement distance of 1,500 m (4,920 ft), we opted to choose the approximate midpoint of these two methods, rounded to the nearest 0.25 km (0.16 mi) and determined 1,250 m (4,101 ft) to be an appropriate estimated dispersal distance from breeding locations. As was the case with the estimate chosen for the mountain yellow-legged frog complex, this distance does not represent the maximum possible dispersal distance, but represents a distance that will reflect the movement of a large majority of Yosemite toads.

Therefore, our criteria for identifying the boundaries of critical habitat units take into account dispersal behavior and distances, but also consider the underlying habitat quality and types, specifically the physical and biological features (and site-specific

knowledge, where available), in defining boundaries for essential habitat.

### (3) Habitat Unit Delineation:

To identify areas containing the PCEs for Yosemite toad that may require special management considerations or protection, we examined the current and historical locations of Yosemite toad in relation to the State of California vegetation layer, the USFS meadow information dataset, the State of California's CALWATER watershed classification system (version 2.2) using the smallest planning watersheds, and appropriate topographic maps.

In order to circumscribe the boundaries of potential critical habitat, we expanded the bounds of known breeding locations for Yosemite toad by the 1,250 m (4,101 ft) dispersal distance and delineated boundaries also taking into account vegetation types, meadow complexes, and dispersal barriers. Where appropriate, we utilized the CALWATER boundaries to reflect potential barriers to dispersal (high, steep ridges), and delineated boundaries based on currently utilized habitat. Watershed boundaries or other topographic features were marked as the unit boundary when it provided for the maintenance of the hydrology and water quality of the aquatic system.

In some instances (such as no obvious dispersal barrier or uncertainty regarding the suitability of habitat within dispersal distance of a known toad location), to further refine the boundaries, we obtained the MaxEnt 3.3.3e species habitat

suitability/distribution model developed and utilized by Liang *et al.* (2010) and Liang and Stohlgren (2011), which covered the range of the Yosemite toad. This model utilized nine environmental and three anthropogenic data layers to provide a predictor of Yosemite toad locations that serves as a partial surrogate for habitat quality and therefore underlying physical or biological features or PCEs. The variables used as model inputs included slope, aspect, vegetation, bioclimate variables (including annual mean temperature, mean diurnal range, temperature seasonality, annual precipitation, precipitation of wettest month, and precipitation seasonality), distance to agriculture, distance to fire perimeter, and distance to timber activity.

As the model incorporated factors that did not directly correlate to the physical or biological features or PCEs (for example, distance to agriculture, distance to fire perimeter, and distance to timber activity) (Liang and Stohlgren 2011, p. 22)), further analysis was required. In areas that were either occupied by Yosemite toad or within dispersal distance of the toad (but the model indicated a low probability of occurrence), we assessed the utility of the model by further estimating potential sources of model derivation (such as fire or anthropogenic factors). If habitat quality indicated by the MaxEnt model was biased based on factors other than those linked to physical or biological features or PCEs, we discounted the MaxEnt output in those areas and based our designation on the PCEs. In these cases, areas are included in our proposed critical habitat designation that ranked low in the MaxEnt output.

Individual proposed critical habitat units are constructed to reflect toad dispersal

ability and habitat use, along with projections of habitat quality, as expressed by the probability models (MaxEnt grid outputs) and other habitat parameters consistent with the PCEs defined above.

We also used historical records as an index of the utility of habitat essential to the conservation of the Yosemite toad to help compensate for any uncertainties in our underlying scientific and site-specific knowledge of ecological features that indicate habitat quality, as we did for the frogs.

### **Proposed Critical Habitat Designation**

Based on the above described criteria, we are proposing 447,341 ha (1,105,400 ac) as critical habitat for the Sierra Nevada yellow-legged frog (Table 1). This area represents approximately 14 percent of the historic range of the species as estimated by Knapp (unpublished data). All subunits proposed for designation as critical habitat are considered occupied (at the subunit level), and include lands within Lassen, Butte, Plumas, Sierra, Nevada, Placer, El Dorado, Amador, Calaveras, Alpine, Tuolumne, Mono, Mariposa, Madera, Fresno, and Inyo Counties, California.

TABLE 1. Proposed Critical Habitat Units for the Sierra Nevada Yellow-legged Frog

Subunit Number	Subunit Name	Hectares (Ha)	Acres (Ac)

1A	Morris Lake	7,154	17,677
1B	Bucks Lake	14,224	35,148
1C	Deanes Valley	2,020	4,990
1D	Slate Creek	2,688	6,641
2A	Boulder/ Lane Rock Creeks	4,500	11,119
2B	Gold Lake	6,354	15,702
2C	Black Buttes	55,961	138,283
2D	Five Lakes	3,758	9,286
2E	Crystal Range	33,666	83,191
2F	Squaw Ridge	44,047	108,842
2G	North Stanislaus	10,701	26,444
2H	Wells Peak	11,711	28,939
2I	Emigrant Yosemite	86,181	212,958
2J	Spiller Lake	1,094	2,704
2K	Virginia Canyon	891	2,203
2L	Register Creek	838	2,070
2M	Saddlebag Lake	8,596	21,242
2N	Unicorn Peak	2,088	5,160
3A	Yosemite Central	1,408	3,480
3B	Cathedral	38,892	96,104
3C	Inyo	3,090	7,636
3D	Mono Creek	18,504	45,723
3E	Evolution/Leconte	87,239	215,572

3F	Pothole Lakes	1,736	4,289
Total		447,341	1,105,400

We are proposing 89,637 ha (221,498 ac) as critical habitat for the northern DPS of the mountain yellow-legged frog (Table 2). This area represents approximately 9 percent of the historic range of the northern DPS of the mountain yellow-legged frog in the Sierra Nevada. All subunits proposed for designation as critical habitat are considered occupied (at the subunit level), and include lands within Fresno and Tulare, Counties, California.

TABLE 2. Proposed Critical Habitat Units for the Northern DPS of the Mountain Yellow-legged Frog

Subunit Number <sup>1</sup>	Subunit Name	Hectares (Ha)	Acres (Ac)
4A	Frypan Meadows	1,585	3,917
4B	Granite Basin	1,777	4,391
4C	Sequoia Kings	67,566	166,958
4D	Kaweah River	3,663	9,052
5A	Blossom Lakes	2,069	5,113
5B	Coyote Creek	9,802	24,222
5C	Mulkey Meadows	3,175	7,846



Total	89,637	221,498
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<sup>1</sup> Subunit numbering begins at 4, following designation of southern DPS of the mountain yellow-legged frog (3 units).

We are proposing 303,889 ha (750,926 ac) as critical habitat for the Yosemite toad (Table 3). All units proposed for designation as critical habitat are considered occupied (at the unit level) and include lands within Alpine, Tuolumne, Mono, Mariposa, Madera, Fresno, and Inyo Counties, California.

TABLE 3. Proposed Critical Habitat Units for the Yosemite Toad.

Unit Number	Unit Name	Hectares (Ha)	Acres (Ac)
1	Blue Lakes/Mokelumne	14,884	36,778
2	Leavitt Lake/Emigrant	30,803	76,115
3	Rogers Meadow	11,797	29,150
4	Hoover Lakes	2,303	5,690
5	Tuolumne Meadows/Cathedral	56,530	139,688
6	McSwain Meadows	6,472	15,992
7	Porcupine Flat	1,701	4,204
8	Westfall Meadows	1,859	4,594
9	Triple Peak	4,377	10,816
10	Chilnualna	6,212	15,351
11	Iron Mountain	7,706	19,043
12	Silver Divide	39,987	98,809

13	Humphrys Basin/Seven Gables	20,666	51,067
14	Kaiser/Dusy	70,978	175,390
15	Upper Goddard Canyon	14,905	36,830
16	Round Corral Meadow	12,711	31,409
Total		303,889	750,926

### Sierra Nevada Yellow-legged Frog

We are proposing three units encompassing 24 subunits as critical habitat for the Sierra Nevada yellow-legged frog. The critical habitat units and subunits that we describe below constitute our current best assessment of areas that meet the definition of critical habitat for the Sierra Nevada yellow-legged frog. Units are numbered for the three major genetic clades (Vredenburg *et al.* 2007, p. 361) that have been identified rangewide for the Sierra Nevada yellow-legged frog. Distinct portions within each clade are designated as subunits. The 24 subunits we propose as critical habitat are listed in Table 4, and all subunits are known to be currently occupied based on the best available scientific and commercial information.

TABLE 4. Critical Habitat Subunits for the Sierra Nevada Yellow-Legged Frog (in Hectares and Acres), Land Ownership, and Known Threats That May Affect the Essential Physical or Biological Features Within the Geographical Area Occupied by the Species at the Time of Listing.

Critical Habitat Subunit	Federal ha (ac)	State/ Local <sup>3</sup> ha (ac)	Private ha (ac)	Total <sup>1</sup> ha (ac)	Known Threats <sup>2</sup>
1A. Morris Lake	6,715 (16,593)	53 (131)	386 (953)	7,154 (17,677)	1, 2, 3, 4, 5
1B. Bucks Lake	13,138 (32,464)	0 (0)	1,086 (2,684)	14,224 (35,148)	1, 3, 4, 5
1C. Deanes Valley	1,962 (4,847)	0 (0)	58 (143)	2,020 (4,990)	3, 4, 5
1D. Slate Creek	2,259 (5,581)	0 (0)	429 (1,060)	2,688 (6,641)	3, 4, 5
2A. Boulder/ Lane Rock Creeks	3,953 (9,767)	0 (0)	547 (1,352)	4,500 (11,119)	1, 2, 3, 4, 5
2B. Gold Lake	5,643 (13,945)	0 (0)	711 (1,758)	6,354 (15,702)	1, 3, 4, 5
2C. Black Buttes	32,745 (80,914)	0 (0)	23,216 (57,369)	55,961 (138,283)	1, 2, 3, 4, 5
2D. Five Lakes	2,396 (5,921)	0 (0)	1,362 (3,365)	3,758 (9,286)	1, 4, 5
2E. Crystal	31,521	0	2,145	33,666	1, 2, 3, 5

Range	(77,891)	(0)	(5,300)	(83,191)	
2F. Squaw Ridge	40,771 (100,746)	56 (138)	3,220 (7,958)	44,047 (108,842)	1, 2, 3, 4, 5
2G. North Stanislaus	10,685 (26,403)	0 (0)	16 (41)	10,701 (26,444)	1, 2, 3, 4, 5
2H. Wells Peak	11,650 (28,788)	0 (0)	61 (150)	11,711 (28,939)	1, 3, 4, 5
2I. Emigrant Yosemite	86,109 (212,780)	50* (124*)	22 (54)	86,181 (212,958)	1, 3, 5
2J. Spiller Lake	1,094 (2,704)	0 (0)	0 (0)	1,094 (2,704)	5
2K. Virginia Canyon	891 (2,203)	0 (0)	0 (0)	891 (2,203)	5
2L. Register Creek	838 (2,070)	0 (0)	0 (0)	838 (2,070)	5
2M. Saddlebag Lake	8,547 (21,120)	0 (0)	49 (122)	8,596 (21,242)	1, 5
2N. Unicorn Peak	2,088 (5,160)	0 (0)	0 (0)	2,088 (5,160)	1, 4, 5
3A. Yosemite Central	1,408 (3,480)	0 (0)	0 (0)	1,408 (3,480)	5

3B. Cathedral	38,892 (96,104)	0 (0)	0 (0)	38,892 (96,104)	1, 3, 5
3C. Inyo	3,090 (7,636)	0 (0)	0 (0)	3,090 (7,636)	1, 5
3D. Mono Creek	18,504 (45,723)	0 (0)	0 (0)	18,504 (45,723)	1, 3, 5
3E. Evolution/ Leconte	87,071 (215,156)	81* (200*)	87 (215)	87,239 (215,572)	1, 3, 5
3F. Pothole Lakes	1,735 (4,286)	0 (0)	1 (2)	1,736 (4,289)	1, 5
Total	413,702 (1,022,279)	108 (267) 132* (325*)	33,398 (82,527)	447,341 (1,105,400)	

Note: Area sizes may not sum due to rounding.

<sup>1</sup>Area estimates in ha (ac) reflect the entire area within the proposed critical habitat unit boundaries. Area estimates are rounded to the nearest whole integer that is equal to or greater than 1.

<sup>2</sup>Codes of known threats that may require special management considerations or protection of the essential physical or biological features:

1. Fish Persistence and Stocking
2. Water Diversions/Development

3. Grazing
4. Timber Harvest/Fuels Reduction
5. Recreation

<sup>3</sup> Asterisks\* signify local jurisdictional (County) lands and are presented for brevity in the same column with State jurisdiction lands.

We present brief descriptions of all units and reasons why they meet the definition of critical habitat for the Sierra Nevada yellow-legged frog below. Each unit and subunit proposed as critical habitat for the Sierra Nevada yellow-legged frog contains aquatic habitat for breeding activities (PCE 1); aquatic habitat to provide for shelter, foraging, predator avoidance, and dispersal during non-breeding phases of their life history (PCE 2); upland areas for feeding and movement , and catchment areas to protect water supply and water quality (PCE 3); and is currently occupied by the species. Each unit and subunit contains the physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog, which may require special management considerations or protection (see the *Special Management Considerations or Protection* section of this proposed rule for a detailed discussion of the threats to Sierra Nevada yellow-legged frog habitat and potential management considerations).

***Unit 1: Sierra Nevada Yellow-legged Frog Clade 1***

Unit 1 is considered essential to the conservation of the Sierra Nevada yellow-legged frog because it represents the northernmost portion of the species' range. It

reflects unique ecological features within the range of the species because it comprises populations that are stream-based. Unit 1, including all subunits, is an essential component of the entirety of this proposed critical habitat designation due to the unique genetic and distributional area this unit encompasses. The frog populations within Clade 1 of the Sierra Nevada yellow-legged frog are at very low numbers and face significant threats from habitat fragmentation. Protection of these populations and the areas necessary for range expansion and recovery is central to the designation of the subunits that comprise Unit 1.

*Subunit 1A: Morris Lake*

The Morris Lake subunit consists of approximately 7,154 ha (17,677 ac), and is located in Plumas and Butte Counties, California, approximately 4 km (2.5 mi) northwest of Highway 70. Land ownership within this subunit consists of approximately 6,715 ha (16,593 ac) of Federal land, 53 ha (131 ac) of State land, and 386 ha (953 ac) of private land. The Morris Lake subunit includes lands in the Plumas and Lassen National Forests. The northwest arms of this subunit encompass Snag Lake and Philbrook Reservoir. This subunit is considered to be within the geographical area occupied by the species at the time of listing and contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to protect core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra

Nevada yellow-legged frog in the Morris Lake subunit may require special management considerations or protection due to the presence of introduced fishes, water diversions and operations, grazing activity, timber management and fuels reduction, and recreational activities.

*Subunit 1B: Bucks Lake*

The Bucks Lake subunit consists of approximately 14,224 ha (35,148 ac). It is located in Plumas County, California, approximately 3 km (1.9 mi) south of Highway 70 near the intersection with Caribou Road, and is bisected on the south end by the Oroville Highway. Land ownership within this subunit consists of approximately 13,138 ha (32,464 ac) of Federal land and 1,086 ha (2,684 ac) of private land. The Bucks Lake subunit is located entirely within the boundaries of the Plumas National Forest. This subunit is considered to be within the geographical area occupied by the species at the time of listing and contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to protect core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Bucks Lake subunit may require special management considerations or protection due to the presence of introduced fishes, grazing activity, timber management and fuels reduction, and recreational activities.



*Subunit 1C: Deanes Valley*

The Deanes Valley subunit consists of approximately 2,020 ha (4,990 ac) and is located in Plumas County, California, approximately 5.7 km (3.6 mi) south of Buck's Lake Road, 6.4 km (4 mi) east of Big Creek Road, 7.5 km (4.7 mi) west of Quincy-LaPorte Road, and 3.5 km (2.2 mi) north of the Middle Fork Feather River. Land ownership within this subunit consists of approximately 1,962 ha (4,847 ac) of Federal land and 58 ha (143 ac) of private land. The Deanes Valley subunit is located entirely within the boundaries of the Plumas National Forest. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to protect core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Deanes Valley subunit may require special management considerations or protection due to grazing activity, timber management and fuels reduction, and recreational activities.

*Subunit 1D: Slate Creek*

The Slate Creek subunit consists of approximately 2,688 ha (6,641 ac), and is located in Plumas and Sierra Counties, California, approximately 0.7 km (0.4 mi) east of the town of LaPorte, and 2.5 km (1.6 mi) southwest of the west branch of Canyon Creek.

Land ownership within this subunit consists of approximately 2,259 ha (5,581 ac) of Federal land and 429 ha (1,060 ac) of private land. The Slate Creek subunit is located entirely within the boundaries of the Plumas National Forest. This subunit is considered to be within the geographical area occupied by the species at the time of listing and contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to protect core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Slate Creek subunit may require special management considerations or protection due to grazing activity, timber management and fuels reduction, and recreational activities.

### ***Unit 2: Sierra Nevada Yellow-legged Frog Clade 2***

This unit is considered essential to the conservation of the species because it represents a significant fraction of the Sierra Nevada yellow-legged frog range, and it reflects unique ecological features within the range by comprising populations that are both stream- and lake-based. Unit 2, including all subunits, is an essential component of the entirety of this proposed critical habitat designation due to the unique genetic and distributional area this unit encompasses. The frog populations within Clade 2 of the Sierra Nevada yellow-legged frog distribution are at very low to intermediate abundance and face significant threats from habitat fragmentation resulting from the introduction of

fish. Protection of these populations and the areas necessary to maintain the geographic extent of this clade across its range, including connectivity between extant populations and higher quality habitat, is central to the designation of the subunits that comprise Unit 2.

*Subunit 2A: Boulder/Lane Rock Creeks*

The Boulder/Lane Rock Creeks subunit consists of approximately 4,500 ha (11,119 ac), and is located in Plumas and Lassen Counties, California, between 8 km (5 mi) and 18 km (11.3 mi) west of Highway 395 near the county line along Wingfield Road. Land ownership within this subunit consists of approximately 3,953 ha (9,767 ac) of Federal land and 547 ha (1,352 ac) of private land. Subunit 2A includes Antelope Lake (which receives two creeks as its northwestern headwaters), and these water bodies provide connectivity for both main areas within the subunit. The Boulder/Lane Rock Creeks subunit is located entirely within the boundaries of the Plumas National Forest. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to protect core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Boulder/Lane Rock Creeks subunit may require special management considerations or protection due to the presence of introduced fishes, water diversions and operations, grazing activity, timber management and fuels reduction, and

recreational activities.

*Subunit 2B: Gold Lake*

The Gold Lake subunit consists of approximately 6,354 ha (15,702 ac), and is located in Plumas and Sierra Counties, California, approximately 8.7 km (5.4 mi) south of Highway 70, and 4.4 km (2.75 mi) north of Highway 49, along Gold Lake Highway to the east. Land ownership within this subunit consists of approximately 5,643 ha (13,945 ac) of Federal land and 711 ha (1,758 ac) of private land. The Gold Lake Subunit is located within the Plumas and Tahoe National Forests. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to protect core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Gold Lake subunit may require special management considerations or protection due to introduced fishes, grazing activity, timber management and fuels reduction, and recreational activities.

*Subunit 2C: Black Buttes*

The Black Buttes subunit consists of approximately 55,961 ha (138,283 ac), and

spans from Sierra County through Nevada County into Placer County, California. It is 8.5 km (5.3 mi) west of Highway 89, 3.7 km (2.3 mi) north of the North Fork American River, and is bisected on the south by Interstate 80. Land ownership within this subunit consists of approximately 32,745 ha (80,914 ac) of Federal land and 23,216 ha (57,369 ac) of private land. The Black Buttes subunit is located entirely within the boundaries of the Tahoe National Forest. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to protect core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Black Buttes subunit may require special management considerations or protection due to the presence of introduced fishes, water diversions and operations, grazing activity, timber management and fuels reduction, and recreational activities.

*Subunit 2D: Five Lakes*

The Five Lakes subunit consists of approximately 3,758 ha (9,286 ac), and is located in the eastern portion of Placer County, California, approximately 2 km (1.25 mi) west of Highway 89 and 12.3 km (7.7 mi) east of Foresthill Road. Land ownership within this subunit consists of approximately 2,396 ha (5,921 ac) of Federal land and

1,362 ha (3,365 ac) of private land. The Five Lakes subunit is located entirely within the boundaries of the Tahoe National Forest. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to protect core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Five Lakes subunit may require special management considerations or protection due to the presence of introduced fishes, timber management and fuels reduction, and recreational activities.

*Subunit 2E: Crystal Range*

The Crystal Range subunit consists of approximately 33,666 ha (83,191 ac), and is located primarily in El Dorado and Placer Counties, California, approximately 3.8 km (2.4 mi) west of Highway 89, bounded on the south by Interstate 50, and 7 km (4.4 mi) east of Ice House Road. The Crystal Range subunit includes portions of the Desolation Wilderness. Land ownership within this subunit consists of approximately 31,521 ha (77,891 ac) of Federal land and 2,145 ha (5,300 ac) of private land. The Crystal Range subunit includes areas within the Eldorado and Tahoe National Forests and also the Lake Tahoe Basin Management Unit. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or

biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to protect core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Crystal Range subunit may require special management considerations or protection due to the presence of introduced fishes, water diversions and operations, grazing activity, and recreational activities.

*Subunit 2F: Squaw Ridge*

The Squaw Ridge subunit consists of approximately 44,047 ha (108,842 ac), and is located in Amador, Alpine, and El Dorado Counties, California. The Squaw Ridge subunit is roughly bounded on the northwest by Highway 88, and on the southeast by Highway 4. Land ownership within this subunit consists of approximately 40,771 ha (100,746 ac) of Federal land, 56 ha (138 ac) of State land, and 3,220 ha (7,958 ac) of private land. The Squaw Ridge subunit includes areas within the Eldorado, Stanislaus, and Humboldt-Toiyabe National Forests. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to protect core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Squaw Ridge Subunit may require special management considerations or protection due to the presence of introduced fishes, water diversions and operations, grazing activity, timber management and fuels reduction, and recreational activities.

*Subunit 2G: North Stanislaus*

The North Stanislaus subunit consists of approximately 10,701 ha (26,444 ac), and is located in Alpine, Tuolumne, and Calaveras Counties, California. It is south of the North Fork Mokelumne River, and is bisected by Highway 4, which traverses the unit from southwest to northeast. Land ownership within this subunit consists of approximately 10,685 ha (26,403 ac) of Federal land and 16 ha (41 ac) of private land. The North Stanislaus subunit is located entirely within the boundaries of the Stanislaus National Forest. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species (under section, is currently functional habitat sustaining frogs, and is needed to protect core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the North Stanislaus Subunit may require special management considerations or protection due to the presence of introduced fishes, water



diversions and operations, grazing activity, timber management and fuels reduction, and recreational activities.

*Subunit 2H: Wells Peak*

The Wells Peak subunit consists of approximately 11,711 ha (28,939 ac), and is located in Alpine, Mono, and Tuolumne Counties, California, approximately 6.4 km (4 mi) west of Highway 395, and bounded by Highway 108 on the south. Land ownership within this subunit consists of approximately 11,650 ha (28,788 ac) of Federal land and 61 ha (150 ac) of private land. Federal holdings within the Wells Peak subunit are within the Stanislaus National Forest. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to protect core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Wells Peak subunit may require special management considerations or protection due to introduced fishes, grazing activity, timber management and fuels reduction, and recreational activities.

*Subunit 2I: Emigrant Yosemite*

The Emigrant Yosemite subunit consists of approximately 86,181 ha (212,958 ac), and is located in Tuolumne and Mono Counties, California, approximately 11 km (6.9 mi) south of Highway 108 and 7.4 km (4.6 mi) north of Hetch Hetchy Reservoir. The Emigrant Yosemite subunit encompasses the Emigrant Wilderness. Land ownership within this subunit consists of approximately 86,109 ha (212,780 ac) of Federal land, 50 ha (124 ac) of local jurisdiction lands, and 22 ha (54 ac) of private land. The Emigrant Yosemite subunit is predominantly in Yosemite National Park and the Stanislaus National Forest. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to protect core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Emigrant Yosemite subunit may require special management considerations or protection due to the presence of introduced fishes, grazing activity, and recreational activities.

*Subunit 2J: Spiller Lake*

The Spiller Lake subunit consists of approximately 1,094 ha (2,704 ac), and is located in Tuolumne County, California, approximately 1.2 km (0.75 mi) west of Summit Lake. The Spiller Lake subunit consists entirely of Federal land, all located within

Yosemite National Park. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to protect core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Spiller Lake subunit may require special management considerations or protection due to recreational activities.

*Subunit 2K: Virginia Canyon*

The Virginia Canyon subunit consists of approximately 891 ha (2,203 ac), and is located in Tuolumne County, California, approximately 4.3 km (2.7 mi) southwest of Spiller Lake, and roughly bounded on the east by Return Creek. The Virginia Canyon subunit consists entirely of Federal land, all located within Yosemite National Park. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to protect core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Virginia Canyon subunit may require special

management considerations or protection due to recreational activities.

*Subunit 2L: Register Creek*

The Register Creek subunit consists of approximately 838 ha (2,070 ac), and is located in Tuolumne County, California, approximately 1.2 km (0.75 mi) west of Regulation Creek, with Register Creek intersecting the subunit on the southwest end and running along the eastern portion to the north. The Register Creek subunit consists entirely of Federal land, all located within Yosemite National Park. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to protect core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Register Creek subunit may require special management considerations or protection due to recreational activities.

*Subunit 2M: Saddlebag Lake*

The Saddlebag Lake subunit consists of approximately 8,596 ha (21,242 ac), and is located in Tuolumne and Mono Counties, California, approximately 12.4 km (7.75 mi) west of Highway 395, and intersected on the southeast boundary by Tioga Pass Road

(Highway 120). Land ownership within this subunit consists of approximately 8,547 ha (21,120 ac) of Federal land and 49 ha (122 ac) of private land. The Saddlebag Lake subunit is predominantly located within Yosemite National Park and the Inyo National Forest. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to protect core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Saddlebag Lake subunit may require special management considerations or protection due to the presence of introduced fishes and recreational activities.

*Subunit 2N: Unicorn Peak*

The Unicorn Peak subunit consists of approximately 2,088 ha (5,160 ac), and is located in Tuolumne County, California, intersected from east to west on its northern boundary by Tioga Pass Road (Highway 120). The Unicorn Peak subunit consists entirely of Federal land, all within Yosemite National Park. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to protect core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Unicorn Peak subunit may require special management considerations or protection due to the presence of introduced fishes, timber management and fuels reduction, and recreational activities.

### ***Unit 3: Sierra Nevada Yellow-Legged Frog Clade 3***

This unit is considered essential to the conservation of the Sierra Nevada yellow-legged frog because it represents a significant portion of the species' range, and it reflects a core conservation area comprising the most robust remaining populations at higher densities (closer proximity) across the species' range. Unit 3, including all subunits, is an essential component of the entirety of this proposed critical habitat designation due to the unique genetic and distributional area this unit encompasses. The frog populations within Clade 3 of the Sierra Nevada yellow-legged frog distribution face significant threats from habitat fragmentation. Protection of these populations and the areas necessary to maintain the geographic extent of this clade across its range is central to the designation of the subunits that comprise Unit 3.

#### ***Subunit 3A: Yosemite Central***

The Yosemite Central subunit consists of approximately 1,408 ha (3,480 ac), and is located in Mariposa County, California, approximately 4 km (2.5 mi) northwest of

Tioga Pass Road (Highway 120) in the heart of Yosemite National Park. The Yosemite Central subunit consists entirely of Federal lands within Yosemite National Park. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to protect core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Yosemite Central subunit may require special management considerations or protection due to recreational activities.

*Subunit 3B: Cathedral*

The Cathedral subunit consists of approximately 38,892 ha (96,104 ac), and is located in Mariposa, Madera, Mono, and Tuolumne Counties, California, approximately 15.6 km (9.75 mi) west of Highway 395 and 9.4 km (5.9 mi) south of Highway 120. The Cathedral subunit consists entirely of Federal land, including lands in Yosemite National Park and the Inyo and Sierra National Forests. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to protect core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Cathedral subunit may require special management considerations or protection due to the presence of introduced fishes, grazing activity, and recreational activities.

*Subunit 3C: Inyo*

The Inyo subunit consists of approximately 3,090 ha (7,636 ac), and is located in Madera County, California, approximately 5.4 km (3.4 mi) southwest of Highway 203. The Inyo subunit consists entirely of Federal land located within the Inyo National Forest. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to protect core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Inyo subunit may require special management considerations or protection due to the presence of introduced fishes and recreational activities.

*Subunit 3D: Mono Creek*

The Mono Creek subunit consists of approximately 18,504 ha (45,723 ac), and is



located in Fresno and Inyo Counties, California, approximately 16 km (10 mi) southwest of Highway 395. The Mono Creek subunit consists entirely of Federal land located within the Sierra and Inyo National Forests. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to protect core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Mono Creek subunit may require special management considerations or protection due to the presence of introduced fishes, grazing activity, and recreational activities.

#### *Subunit 3E: Evolution/Leconte*

The Evolution/Leconte subunit consists of approximately 87,239 ha (215,572 ac), and is located in Fresno and Inyo Counties, California, approximately 12.5 km (7.8 mi) southwest of Highway 395. Land ownership within this subunit consists of approximately 87,071 ha (215,156 ac) of Federal land, 81 ha (200 ac) of local jurisdictional lands, and 87 ha (215 ac) of private land. The Evolution/Leconte subunit is predominantly within the Sierra and Inyo National Forests and Kings Canyon National Park. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential

to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to protect core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Evolution/Leconte subunit may require special management considerations or protection due to the presence of introduced fishes, grazing activity, and recreational activities.

*Subunit 3F: Pothole Lakes*

The Pothole Lakes subunit consists of approximately 1,736 ha (4,289 ac), and is located in Inyo County, California, approximately 13.1 km (8.2 mi) west of Highway 395. Land ownership within this subunit consists of approximately 1,735 ha (4,286 ac) of Federal land and 1 ha (2 ac) of private land. The Pothole Lakes subunit is almost entirely located within the Inyo National Forest. This subunit is considered to be within the geographical area occupied by the species at the time of listing and contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to protect core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Pothole Lakes subunit may require special management considerations or protection due to the presence of introduced fishes and

recreational activities.

#### Northern DPS of the Mountain Yellow-legged Frog

We are proposing seven subunits as critical habitat for the northern DPS of the mountain yellow-legged frog. The critical habitat areas we describe below constitute our current best assessment of areas that meet the definition of critical habitat for the northern DPS of the mountain yellow-legged frog. Units are named after the major genetic clades (Vredenburg *et al.* 2007, p. 361), of which three exist rangewide for the mountain yellow-legged frog, and two are within the northern DPS of the mountain yellow-legged frog in the Sierra Nevada. Distinct units within each clade are designated as subunits. Unit designations begin numbering sequentially, following the three units already designated on September 14, 2006, for the southern DPS of the mountain yellow-legged frog (71 FR 54344). The seven subunits we propose as critical habitat are listed in Table 5 and are, based on the best available scientific and commercial information, currently occupied.

TABLE 5. Critical Habitat Units for the Northern DPS of the Mountain Yellow-Legged Frog (in Hectares and Acres), Land Ownership, and Known Threats That May Affect the Essential Physical or Biological Features for Units Within the Geographical Area Occupied by the Species at the Time of Listing.

Critical Habitat Unit	Federal	Private	Total <sup>1</sup>	Known threats <sup>2</sup>
	Ha	Ha	Ha	
	(Ac)	(Ac)	(Ac)	

4A. Frypan Meadows	1,585 (3,917)	0 (0)	1,585 (3,917)	5
4B. Granite Basin	1,777 (4,391)	0 (0)	1,777 (4,391)	5
4C. Sequoia Kings	67,566 (166,958)	0 (0)	67,566 (166,958)	1, 5
4D. Kaweah River	3,663 (9,052)	0 (0)	3,663 (9,052)	5
5A. Blossom Lakes	2,069 (5,113)	0 (0)	2,069 (5,113)	5
5B. Coyote Creek	9,792 (24,197)	10 (24)	9,802 (24,222)	1, 5
5C. Mulkey Meadows	3,175 (7,846)	0 (0)	3,175 (7,846)	1, 3, 5
Total	89,627 (221,474)	10 (24)	89,637 (221,498)	

Note: Area sizes may not sum due to rounding.

<sup>1</sup> Area estimates in ha (ac) reflect the entire area within the proposed critical habitat unit boundaries. Area estimates are rounded to the nearest whole integer that is equal to or greater than 1.

<sup>2</sup> Codes of known threats that may require special management considerations or protection of the essential physical or biological features:

1. Fish Persistence and Stocking

2. Water Diversions/Development
3. Grazing
4. Timber Harvest/Fuels Reduction
5. Recreation

We present brief descriptions of all subunits and reasons why they meet the definition of critical habitat for the northern DPS of the mountain yellow-legged frog below. Each unit and subunit proposed as critical habitat for the northern DPS of the mountain yellow-legged frog contains aquatic habitat for breeding activities (PCE 1); aquatic habitat to provide for shelter, foraging, predator avoidance, and dispersal during nonbreeding phases within their life history (PCE 2); upland areas for feeding and movement, and catchment areas to protect water supply and water quality (PCE 3); and is currently occupied by the species. Each unit and subunit contains the physical and biological features essential to the conservation of the northern DPS of the mountain yellow-legged frog, which may require special management (see the *Special Management Considerations or Protection* section of this proposed rule for a detailed discussion of the threats to Sierra Nevada yellow-legged frog habitat and potential management considerations).

***Unit 4: Northern DPS of the Mountain Yellow-legged Frog Clade 4***

This unit is considered essential to the conservation of the species because it represents a significant portion of the northern DPS of the mountain yellow-legged frog

range, and reflects a core conservation area comprising the most robust remaining populations at higher densities (closer proximity) across the species' range. Unit 4, including all subunits, is an essential component to the entirety of this proposed critical habitat designation due to the unique genetic and distributional area this unit encompasses. The frog populations within Clade 4 of the northern DPS of the mountain yellow-legged frog distribution face significant threats from habitat fragmentation. Protection of these populations and the areas necessary to maintain the geographic extent of this clade across its range is central to the designation of the subunits that comprise Unit 4. In addition, Clade 4 includes the only remaining basins with high-density, lake-based populations that are not infected with Bd, and chytrid epidemics will likely decimate these uninfected populations in the near future unless habitat protections and special management considerations are implemented. It is necessary to broadly protect remnant populations across the range of Clade 4 to facilitate species persistence in suitable habitat.

#### *Subunit 4A: Frypan Meadows*

The Frypan Meadows subunit consists of approximately 1,585 ha (3,917 ac), and is located in Fresno County, California, approximately 4.3 km (2.7 mi) northwest of Highway 180. The Frypan Meadows subunit consists entirely of Federal land, located entirely within the boundaries of the Kings Canyon National Park. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of

the species, is currently functional habitat sustaining frogs, and is needed to protect core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the northern DPS of the mountain yellow-legged frog in the Frypan Meadows subunit may require special management considerations or protection due to recreational activities.

*Subunit 4B: Granite Basin*

The Granite Basin subunit consists of approximately 1,777 ha (4,391 ac), and is located in Fresno County, California, approximately 3.2 km (2 mi) north of Highway 180. The Granite Basin subunit consists entirely of Federal land, located within the boundaries of the Kings Canyon National Park. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to protect core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the northern DPS of the mountain yellow-legged frog in the Granite Basin subunit may require special management considerations or protection due to recreational activities.

*Subunit 4C: Sequoia Kings*

The Sequoia Kings subunit consists of approximately 67,566 ha (166,958 ac), and is located in Fresno and Tulare Counties, California, approximately 18 km (11.25 mi) west of Highway 395 and 4.4 km (2.75 mi) southeast of Highway 180. The Sequoia Kings subunit consists entirely of Federal land, all within Sequoia and Kings Canyon National Parks. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to protect core surviving populations and their unique genetic heritage.

The physical and biological features essential to the conservation of the northern DPS of the mountain yellow-legged frog in the Sequoia Kings subunit may require special management considerations or protection due to the presence of introduced fishes and recreational activities.

*Subunit 4D: Kaweah River*

The Kaweah River subunit consists of approximately 3,663 ha (9,052 ac), and is located in Tulare County, California, approximately 2.8 km (1.75 mi) east of Highway 198. The Kaweah River subunit consists entirely of Federal land, all within Sequoia National Park. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features



essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to protect core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the northern DPS of the mountain yellow-legged frog in the Kaweah River subunit may require special management considerations or protection due to recreational activities.

#### ***Unit 5: Northern DPS of the Mountain Yellow-legged Frog Clade 5***

This unit is considered essential to the conservation of the northern DPS of the mountain yellow-legged frog since it represents the southern portion of the species' range, and reflects unique ecological features within the range of the species because it comprises populations that are stream-based. Unit 5, including all subunits, is an essential component of the entirety of this proposed critical habitat designation due to the unique genetic and distributional area this unit encompasses. The frog populations within Clade 5 of the northern DPS of the mountain yellow-legged frog distribution are at very low numbers, and face significant threats from habitat fragmentation. Protection of these populations and areas necessary for range expansion and recovery is central to the designation of the subunits that comprise Unit 5.

##### ***Subunit 5A: Blossom Lakes***

The Blossom Lakes subunit consists of approximately 2,069 ha (5,113 ac), and is located in Tulare County, California, approximately 0.8 km (0.5 mi) northwest of Silver Lake. The Blossom Lakes subunit consists entirely of Federal land, located within Sequoia National Park and Sequoia National Forest. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to protect core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the northern DPS of the mountain yellow-legged frog in the Blossom Lakes subunit may require special management considerations or protection due to recreational activities.

*Subunit 5B: Coyote Creek*

The Coyote Creek subunit consists of approximately 9,802 ha (24,222 ac), and is located in Tulare County, California, approximately 7.5 km (4.7 mi) south of Moraine Lake. Land ownership within this subunit consists of approximately 9,792 ha (24,197 ac) of Federal land and 10 ha (24 ac) of private land. The Coyote Creek subunit is predominantly within Sequoia National Park and Sequoia and Inyo National Forests. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed

to protect core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the northern DPS of the mountain yellow-legged frog in the Coyote Creek subunit may require special management considerations or protection due to the presence of introduced fishes and recreational activities.

*Subunit 5C: Mulkey Meadows*

The Mulkey Meadows subunit consists of approximately 3,175 ha (7,846 ac), and is located in Tulare County, California, approximately 10 km (6.25 mi) west of Highway 395. The Mulkey Meadows subunit consists entirely of Federal land, all within the Inyo National Forest. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to protect core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the northern DPS of the mountain yellow-legged frog in the Mulkey Meadows subunit may require special management considerations or protection due to the presence of introduced fishes, grazing activity, and recreational activities.

## Yosemite Toad

We are proposing 16 units as critical habitat for the Yosemite toad. The critical habitat areas we describe below constitute our current best assessment of areas that meet the definition of critical habitat for the Yosemite toad. The 16 units we propose as critical habitat are listed in Table 6, and all 16 units are currently occupied.

TABLE 6. Critical Habitat Units Proposed for the Yosemite Toad (in Hectares and Acres), Land Ownership, and Known Threats That May Affect the Essential Physical or Biological Features for Units Within the Geographical Area Occupied by the Species at the Time of Listing.

Critical Habitat Unit	Federal Ha (Ac)	Private Ha (Ac)	Total <sup>1</sup> Ha (Ac)	Known threats <sup>2</sup>
1. Blue Lakes/Mokelumne	13,896 (34,338)	987 (2,440)	14,884 (36,778)	2, 4
2. Leavitt Lake/Emigrant	30,789 (76,081)	13 (33)	30,803 (76,115)	2, 4
3. Rogers Meadow	11,797 (29,150)	0 (0)	11,797 (29,150)	N/A <sup>3</sup>
4. Hoover Lakes	2,303	0	2,303	4

	(5,690)	(0)	(5,690)	
5. Tuolumne Meadows/Cathedral	56,477 (139,557)	53 (131)	56,530 (139,688)	4
6. McSwain Meadows	6,472 (15,992)	0 (0)	6,472 (15,992)	4
7. Porcupine Flat	1,701 (4,204)	0 (0)	1,701 (4,204)	4
8. Westfall Meadows	1,859 (4,594)	0 (0)	1,859 (4,594)	4
9. Triple Peak	4,377 (10,816)	0 (0)	4,377 (10,816)	4
10. Chilnualna	6,212 (15,351)	0 (0)	6,212 (15,351)	4
11. Iron Mountain	7,404 (18,296)	302 (747)	7,706 (19,043)	2,3,4
12. Silver Divide	39,986 (98,807)	1 (2)	39,987 (98,809)	2, 4
13. Humphrys Basin/Seven Gables	20,658 (51,046)	8 (21)	20,666 (51,067)	3, 4
14. Kaiser/Dusy	70,670 (174,629)	308 (761)	70,978 (175,390)	2, 3, 4
15. Upper Goddard Canyon	14,905	0	14,905	N/A <sup>3</sup>

	(36,830)	(0)	(36,830)	
16. Round Corral Meadow	12,613 (31,168)	97 (241)	12,711 (31,409)	2, 4
Total	302,188 (746,551)	1,771 (4,376)	303,889 (750,926)	

Note: Area sizes may not sum due to rounding.

<sup>1</sup>Area estimates in ha (ac) reflect the entire area within the proposed critical habitat unit boundaries. Area estimates are rounded to the nearest whole integer that is equal to or greater than 1.

<sup>2</sup>Codes of known threats that may require special management considerations or protection of the essential physical or biological features:

1. Water Diversions
2. Grazing
3. Timber Harvest/Fuels Reduction
4. Recreation

<sup>3</sup>Indicates no manageable threats (disease, predation, and climate change are not included in this table).

We present brief descriptions of all units and reasons why they meet the definition of critical habitat for the Yosemite toad below. Each unit proposed as critical habitat for the Yosemite toad contains aquatic habitat for breeding activities (PCE 1) and upland habitat for foraging, dispersal, and overwintering activities (PCE 2), and is currently

occupied by the species. Each unit contains the physical and biological features essential to the conservation of the Yosemite toad, which may require special management (see the *Special Management Considerations or Protection* section of this proposed rule for a detailed discussion of the threats to Yosemite toad habitat and potential management considerations).

#### *Unit 1: Blue Lakes/Mokelumne*

This unit consists of approximately 14,884 ha (36,778 ac), and is located in Alpine County, California, north and south of Highway 4. Land ownership within this unit consists of approximately 13,896 ha (34,338 ac) of Federal land and 987 ha (2,440 ac) of private land. The Blue Lakes/Mokelumne unit is predominantly within the Eldorado, Humboldt-Toiyabe, and Stanislaus National Forests. This unit is currently occupied and contains the physical or biological features essential to the conservation of the species. This unit is considered essential to the conservation of the species because it represents the northernmost portion of the Yosemite toad range and constitutes an area of high genetic diversity. The Blue Lakes/Mokelumne unit is an essential component of the entirety of this proposed critical habitat designation due to the genetic and distributional area this unit encompasses.

The physical or biological features essential to the conservation of the Yosemite toad in the Blue Lakes/Mokelumne unit may require special management considerations or protection due to grazing and recreational activities.

### *Unit 2: Leavitt Lake/Emigrant*

This unit consists of approximately 30,803 ha (76,115 ac), and is located near the border of Alpine, Tuolumne, and Mono Counties, California, predominantly south of Highway 108. Land ownership within this unit consists of approximately 30,789 ha (76,081 ac) of Federal land and 13 ha (33 ac) of private land. The Leavitt Lake/Emigrant unit is predominantly within the Stanislaus and Humboldt-Toiyabe National Forests and Yosemite National Park. This unit is currently occupied and contains the physical or biological features essential to the conservation of the species. This unit is considered essential to the conservation of the species because it contains a high concentration of Yosemite toad breeding locations and represents a variety of habitat types utilized by the species. The Leavitt Lake/Emigrant unit is an essential component of the entirety of this proposed critical habitat designation because it provides continuity of habitat between adjacent units, as well as providing for a variety of habitat types necessary to sustain Yosemite toad populations under a variety of climate regimes.

The physical or biological features essential to the conservation of the Yosemite toad in the Leavitt Lake/Emigrant unit may require special management considerations or protection due to grazing and recreational activities.

### *Unit 3: Rogers Meadow*



This unit consists of approximately 11,797 ha (29,150 ac) of Federal land located entirely within Humboldt-Toiyabe National Forest and Yosemite National Park. The Rogers Meadow unit is located along the border of Tuolumne and Mono Counties, California, north of Highway 120. This unit is currently occupied and contains the physical or biological features essential to the conservation of the species. This unit is considered essential to the conservation of the species because it contains a high concentration of Yosemite toad breeding locations, is located in a relatively pristine ecological setting, and represents a variety of habitat types utilized by the species. The Rogers Meadow unit is an essential component of the entirety of this proposed critical habitat designation because it provides continuity of habitat between adjacent units as well as providing for a variety of habitat types necessary to sustain Yosemite toad populations under various climate regimes. This unit has no manageable threats (note that disease, predation, and climate change are not considered manageable threats).

#### *Unit 4: Hoover Lakes*

This unit consists of approximately 2,303 ha (5,690 ac) of Federal land located entirely within the Inyo and Humboldt-Toiyabe National Forests and Yosemite National Park. The Hoover Lakes unit is located along the border of Mono and Tuolumne Counties, California, east of Highway 395. This unit is currently occupied and contains the physical or biological features essential to the conservation of the species. This unit is considered essential to the conservation of the species because it contains Yosemite toad populations with a high degree of genetic variability east of the Sierra crest within

the central portion of the species' range. This unit contains habitats that are essential to the Yosemite toad facing an uncertain climate future. The Hoover Lakes unit is an essential component of the entirety of this proposed critical habitat designation because it provides a continuity of habitat between adjacent units, provides for the maintenance of genetic variation, and provides habitat types necessary to sustain Yosemite toad populations under various climate regimes.

The physical or biological features essential to the conservation of Yosemite toad in the Hoover Lakes unit may require special management considerations or protection due to recreational activities.

#### *Unit 5: Tuolumne Meadows/Cathedral*

This unit consists of approximately 56,530 ha (139,688 ac), and is located within Tuolumne, Mono, Mariposa, and Madera Counties, California, both north and south of Highway 120. Land ownership within this unit consists of approximately 56,477 ha (139,557 ac) of Federal land and 53 ha (131 ac) of private land. The Tuolumne Meadows/Cathedral unit is predominantly within the Inyo National Forest and Yosemite National Park. This unit is currently occupied and contains the physical or biological features essential to the conservation of the species. This unit is considered essential to the conservation of the species because it contains a high concentration of Yosemite toad breeding locations, represents a variety of habitat types utilized by the species, has high genetic variability, and, due to the long-term occupancy of this unit, is considered an

essential locality for Yosemite toad populations. The Tuolumne Meadows/Cathedral unit is an essential component of the entirety of this proposed critical habitat designation because it provides continuity of habitat between adjacent units, as well as providing for a variety of habitat types necessary to sustain Yosemite toad populations under various climate regimes.

The physical or biological features essential to the conservation of the Yosemite toad in the Tuolumne Meadows/Cathedral unit may require special management considerations or protection due to recreational activities.

#### *Unit 6: McSwain Meadows*

This unit consists of approximately 6,472 ha (15,992 ac) of Federal land located entirely within Yosemite National Park. The McSwain Meadows unit is located along the border of Tuolumne and Mariposa Counties, California, north and south of Highway 120 in the vicinity of Yosemite Creek. This unit is currently occupied and contains the physical or biological features essential to the conservation of the species. This unit is considered essential to the conservation of the species because it contains Yosemite toad populations located at the western edge of the range of the species within the central region of its geographic distribution. This area contains a concentration of Yosemite toad localities, as well as representing a wide variety of habitat types utilized by the species. This unit contains habitats that are essential to the Yosemite toad facing an uncertain climate future. The McSwain Meadows unit is an essential component of the entirety of

this proposed critical habitat designation because it provides a unique geographic distribution and variation in habitat types necessary to sustain Yosemite toad populations under various climate regimes.

The physical or biological features essential to the conservation of Yosemite toad in the McSwain Meadows unit may require special management considerations or protection due to recreational activities.

#### *Unit 7: Porcupine Flat*

This unit consists of approximately 1,701 ha (4,204 ac) of Federal land located entirely within Yosemite National Park. The Porcupine Flat unit is located within Mariposa County, California, north and south of Highway 120 and east of Yosemite Creek. This unit is currently occupied and contains the physical or biological features essential to the conservation of the species. This unit is considered essential to the conservation of the species because it contains a concentration of Yosemite toad localities in proximity to the western edge of the species' range within the central region of its geographic distribution, and provides a wide variety of habitat types utilized by the species. The Porcupine Flat unit is an essential component of the entirety of this proposed critical habitat designation due to its proximity to Unit 6, which allows Unit 7 to provide continuity of habitat between Units 5 and 6, and its geographic distribution and variation in habitat types necessary to sustain Yosemite toad populations under various climate regimes.

The physical or biological features essential to the conservation of the Yosemite toad in the Porcupine Flat unit may require special management considerations or protection due to recreational activities.

*Unit 8: Westfall Meadows*

This unit consists of approximately 1,859 ha (4,594 ac) of Federal land located entirely within Yosemite National Park. The Westfall Meadows unit is located within Mariposa County, California, along Glacier Point Road. This unit is currently occupied and contains the physical or biological features essential to the conservation of the species. The Westfall Meadows unit is considered essential to the conservation of the species because it contains Yosemite toad populations located at the western edge of the species' range within the central region of its geographic distribution, and south of the Merced River. Given that the Merced River acts as a dispersal barrier in this portion of Yosemite National Park, it is unlikely that there is genetic exchange between Unit 8 and Unit 6; thus Unit 8 represents an important geographic and genetic distribution of the species essential to conservation. This unit contains habitats essential to the conservation of the Yosemite toad facing an uncertain climate future. Unit 8 is an essential component of the entirety of this proposed critical habitat designation because it provides a unique geographic distribution and variation in habitat types necessary to sustain Yosemite toad populations under various climate regimes.

The physical or biological features essential to the conservation of the Yosemite toad in the Westfall Meadows unit may require special management considerations or protection due to recreational activities.

#### *Unit 9: Triple Peak*

This unit consists of approximately 4,377 ha (10,816 ac) of Federal land located entirely within the Sierra National Forest and Yosemite National Park. The Triple Peak unit is located within Madera County, California, between the Merced River and the South Fork Merced River. This unit is currently occupied and contains the physical or biological features essential to the conservation of the species. This unit is considered essential to the conservation of the species because it contains a high concentration of Yosemite toad breeding locations and represents a variety of habitat types utilized by the species. The Triple Peak unit is an essential component of the entirety of this proposed critical habitat designation because it provides continuity of habitat between adjacent units, specifically east-west connectivity, as well as habitat types necessary to sustain Yosemite toad populations under various climate regimes.

The physical or biological features essential to the conservation of the Yosemite toad in the Triple Peak unit may require special management considerations or protection due to recreational activities.

#### *Unit 10: Chilnualna*

This unit consists of approximately 6,212 ha (15,351 ac) of Federal land located entirely within Yosemite National Park. The Chilnualna unit is located within Mariposa and Madera Counties, California, north of the South Fork Merced River. This unit is currently occupied and contains the physical or biological features essential to the conservation of the species. This unit is considered essential to the conservation of the species because it contains a high concentration of Yosemite toad breeding locations and represents a variety of habitat types utilized by the species. The Chilnualna Unit is an essential component of the entirety of this proposed critical habitat designation because it provides continuity of habitat between adjacent units, as well as habitat types necessary to sustain Yosemite toad populations under various climate regimes.

The physical or biological features essential to the conservation of the Yosemite toad in the Chilnualna unit may require special management considerations or protection due to recreational activities.

#### *Unit 11: Iron Mountain*

This unit consists of approximately 7,706 ha (19,043 ac), and is located within Madera County, California, south of the South Fork Merced River. Land ownership within this unit consists of approximately 7,404 ha (18,296 ac) of Federal land and 302 ha (747 ac) of private land. The Iron Mountain unit is predominantly within the Sierra National Forest and Yosemite National Park. This unit is currently occupied and contains

the physical or biological features essential to the conservation of the species. This unit is considered essential to the conservation of the species because it contains a high concentration of Yosemite toad breeding locations and represents a variety of habitat types utilized by the species. This unit further contains the southernmost habitat within the central portion of the range of the Yosemite toad. The Iron Mountain unit is an essential component of the entirety of this proposed critical habitat designation because it provides continuity of habitat between adjacent units, as well as habitat types necessary to sustain Yosemite toad populations under various climate regimes.

The physical or biological features essential to the conservation of Yosemite toad in the Iron Mountain unit may require special management considerations or protection due to grazing, timber harvest and fuels reduction, and recreational activities.

#### *Unit 12: Silver Divide*

This unit consists of approximately 39,987 ha (98,809 ac), and is located within Fresno, Inyo, Madera, and Mono Counties, California, southeast of the Middle Fork San Joaquin River. Land ownership within this unit consists of approximately 39,986 ha (98,807 ac) of Federal land and 1 ha (2 ac) of private land. The Silver Divide unit is predominantly within the Inyo and Sierra National Forests. This unit is currently occupied and contains the physical or biological features essential to the conservation of the species. This unit is considered essential to the conservation of the species because it contains a high concentration of Yosemite toad breeding locations and represents a



variety of habitat types utilized by the species. The Silver Divide unit is an essential component of the entirety of this proposed critical habitat designation because it provides continuity of habitat between adjacent units, as well as habitat types necessary to sustain Yosemite toad populations under various climate regimes.

The physical and biological features essential to the conservation of the Yosemite toad in the Silver Divide unit may require special management considerations or protection due to grazing and recreational activities.

#### *Unit 13: Humphrys Basin/Seven Gables*

This unit consists of approximately 20,666 ha (51,067 ac), and is located within Fresno and Inyo Counties, California, northeast of the South Fork San Joaquin River. Land ownership within this unit consists of approximately 20,658 ha (51,046 ac) of Federal land and 8 ha (21 ac) of private land. The Humphrys Basin/Seven Gables unit is predominantly within the Inyo and Sierra National Forests. This unit is currently occupied and contains the physical or biological features essential to the conservation of the species. This unit is considered essential to the conservation of the species because it contains a high concentration of Yosemite toad breeding locations and represents a variety of habitat types utilized by the species. The Humphrys Basin/Seven Gables unit is an essential component of the entirety of this proposed critical habitat designation because it provides continuity of habitat between adjacent units, as well as habitat types necessary to sustain Yosemite toad populations under various climate regimes.

The physical or biological features essential to the conservation of the Yosemite toad in the Humphrys Basin/Seven Gables unit may require special management considerations or protection due to recreation and timber harvest/fuels reduction activities.

*Unit 14: Kaiser/Dusy*

This unit consists of approximately 70,978 ha (175,390 ac), and is located in Fresno County, California, between the south fork of the San Joaquin River and the north fork of the Kings River. Land ownership within this unit consists of approximately 70,670 ha (174,629 ac) of Federal land and 308 ha (761 ac) of private land. The Kaiser/Dusy unit is predominantly within the Sierra National Forest. This unit is currently occupied and contains the physical or biological features essential to the conservation of the species. This unit is considered essential to the conservation of the species because it contains a high concentration of Yosemite toad breeding locations, represents a variety of habitat types utilized by the species, and is located at the southwestern extent of the Yosemite toad range. The Kaiser/Dusy unit is an essential component of the entirety of this proposed critical habitat designation because it provides continuity of habitat between adjacent units, as well as habitat types necessary to sustain Yosemite toad populations under various climate regimes.

The physical or biological features essential to the conservation of the Yosemite

toad in the Kaiser/Dusy unit may require special management considerations or protection due to grazing, timber harvest and fuels reduction, and recreational activities.

*Unit 15: Upper Goddard Canyon*

This unit consists of approximately 14,905 ha (36,830 ac) of Federal land located entirely within Kings Canyon National Park and the Sierra National Forest. The Upper Goddard Canyon unit is located within Fresno and Inyo Counties, California, at the upper reach of the South Fork San Joaquin River. This unit is currently occupied and contains the physical or biological features essential to the conservation of the species. This unit is considered essential to the conservation of the species because it contains a high concentration of Yosemite toad breeding locations, represents a variety of habitat types utilized by the species, and is located at the easternmost extent within the southern portion of the Yosemite toad's range. The Upper Goddard Canyon unit is an essential component of the entirety of this proposed critical habitat designation because it provides continuity of habitat between adjacent units, as well as habitat types necessary to sustain Yosemite toad populations under various climate regimes. This unit has no manageable threats (note that disease, predation, and climate change are not considered manageable threats).

*Unit 16: Round Corral Meadow*

This unit consists of approximately 12,711 ha (31,409 ac), and is located in

Fresno County, California, south of the North Fork Kings River. Land ownership within this unit consists of approximately 12,613 ha (31,168 ac) of Federal land and 97 ha (241 ac) of private land. The Round Corral Meadow unit is predominantly within the Sierra National Forest. This unit is considered essential to the conservation of the species because it contains a high concentration of Yosemite toad breeding locations, represents a variety of habitat types utilized by the species, and encompasses the southernmost portion of the range of the species. The Round Corral Meadow unit is an essential component of the entirety of this proposed critical habitat designation because it provides continuity of habitat between adjacent units, represents the southernmost portion of the range, and provides habitat types necessary to sustain Yosemite toad populations under various climate regimes.

The physical or biological features essential to the conservation of the Yosemite toad in the Round Corral Meadow unit may require special management considerations or protection due to grazing and recreational activities.

## **Effects of Critical Habitat Designation**

### *Section 7 Consultation*

Section 7(a)(2) of the Act requires Federal agencies, including the Service, to ensure that any action they fund, authorize, or carry out is not likely to jeopardize the

continued existence of any endangered species or threatened species or result in the destruction or adverse modification of designated critical habitat of such species. In addition, section 7(a)(4) of the Act requires Federal agencies to confer with the Service on any agency action that is likely to jeopardize the continued existence of any species proposed to be listed under the Act or result in the destruction or adverse modification of proposed critical habitat.

Decisions by the 5<sup>th</sup> and 9<sup>th</sup> Circuit Courts of Appeals have invalidated our regulatory definition of “destruction or adverse modification” (50 CFR 402.02) (see *Gifford Pinchot Task Force v. U.S. Fish and Wildlife Service*, 378 F. 3d 1059 (9<sup>th</sup> Cir. 2004) and *Sierra Club v. U.S. Fish and Wildlife Service et al.*, 245 F.3d 434, 442 (5<sup>th</sup> Cir. 2001)), and we do not rely on this regulatory definition when analyzing whether an action is likely to destroy or adversely modify critical habitat. Under the statutory provisions of the Act, we determine destruction or adverse modification on the basis of whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species.

If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. Examples of actions that are subject to the section 7 consultation process are actions on State, tribal, local, or private lands that require a Federal permit (such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act (33 U.S.C. 1251 *et seq.*) or a permit from the Service under section 10 of the Act) or that involve some other Federal action

(such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency). Federal actions not affecting listed species or critical habitat, and actions on State, tribal, local, or private lands that are not federally funded or authorized, do not require section 7 consultation.

As a result of section 7 consultation, we document compliance with the requirements of section 7(a)(2) through our issuance of:

- (1) A concurrence letter for Federal actions that may affect, but are not likely to adversely affect, listed species or critical habitat; or
- (2) A biological opinion for Federal actions that may affect, and are likely to adversely affect, listed species or critical habitat.

When we issue a biological opinion concluding that a project is likely to jeopardize the continued existence of a listed species and/or destroy or adversely modify critical habitat, we provide reasonable and prudent alternatives to the project, if any are identifiable, that would avoid the likelihood of jeopardy and/or destruction or adverse modification of critical habitat. We define “reasonable and prudent alternatives” (at 50 CFR 402.02) as alternative actions identified during consultation that:

- (1) Can be implemented in a manner consistent with the intended purpose of the action,
- (2) Can be implemented consistent with the scope of the Federal agency’s legal authority and jurisdiction,
- (3) Are economically and technologically feasible, and

(4) Would in the Director's opinion, avoid the likelihood of jeopardizing the continued existence of listed species and/or resulting in the destruction or adverse modification of critical habitat.

Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project. Costs associated with implementing a reasonable and prudent alternative are similarly variable.

Regulations at 50 CFR 402.16 require Federal agencies to reinitiate consultation on previously reviewed actions in instances where we have listed a new species or subsequently designated critical habitat that may be affected and the Federal agency has retained discretionary involvement or control over the action (or the agency's discretionary involvement or control is authorized by law). Consequently, Federal agencies sometimes may need to request reinitiation of consultation with us on actions for which formal consultation has been completed, if those actions with discretionary involvement or control may affect subsequently listed species or designated critical habitat.

#### *Application of the "Adverse Modification" Standard*

The key factor related to the adverse modification determination is whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species. Activities that may

destroy or adversely modify critical habitat are those that alter the physical or biological features to an extent that appreciably reduces the functionality of an individual critical habitat unit or subunit, thereby appreciably reducing the suitability of critical habitat for the Sierra Nevada yellow-legged frog, the northern DPS of the mountain yellow-legged frog, or the Yosemite toad to provide for the conservation of these species. As discussed above, the role of critical habitat is to support life-history needs of the species and provide for the conservation of the species.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe, in any proposed or final regulation that designates critical habitat, activities involving a Federal action that may destroy or adversely modify such habitat, or that may be affected by such designation.

Activities that may affect critical habitat, when carried out, funded, or authorized by a Federal agency, should result in consultation for the Sierra Nevada yellow-legged frog and northern DPS mountain yellow-legged frog. These activities include, but are not limited to:

(1) Actions that significantly alter water chemistry or temperature. Such activities could include, but are not limited to, release of chemicals, biological pollutants, or heated effluents into surface water or into connected ground water at a point source or by dispersed release (non-point source). These activities may alter water conditions beyond the tolerances of the Sierra Nevada yellow-legged frog or northern DPS of the mountain



yellow-legged frog and result in direct or cumulative adverse effects to individuals and their life cycles.

(2) Actions that would significantly increase sediment deposition within the stream channel, lake, or other aquatic feature, or disturb riparian foraging and dispersal habitat. Such activities could include, but are not limited to, excessive sedimentation from livestock overgrazing, road construction, channel alteration, timber harvest, unauthorized off-road vehicle or recreational use, and other watershed and floodplain disturbances. These activities could eliminate or reduce the habitat necessary for the growth and reproduction of the Sierra Nevada yellow-legged frog or northern DPS of the mountain yellow-legged frog by increasing the sediment deposition to levels that would adversely affect a frog's ability to complete its life cycle.

(3) Actions that would significantly alter channel or lake morphology, geometry, or water availability. Such activities could include, but are not limited to, channelization, impoundment, road and bridge construction, development, mining, dredging, destruction of riparian vegetation, water diversion, water withdrawal, and hydropower generation. These activities may lead to changes to the hydrologic function of the channel or lake, and alter the timing, duration, waterflows, and levels that would degrade or eliminate mountain yellow-legged frog habitat. These actions can also lead to increased sedimentation and degradation in water quality to levels that are beyond the tolerances of the Sierra Nevada yellow-legged frog or northern DPS of the mountain yellow-legged frog.

(4) Actions that significantly reduce or limit the availability of breeding or overwintering aquatic habitat for the Sierra Nevada yellow-legged frog or northern DPS of the mountain yellow-legged frog. Such activities could include, but are not limited to, stocking of introduced fishes, water diversion, water withdrawal, and hydropower generation. These actions could lead to the reduction in available breeding and overwintering habitat for the Sierra Nevada yellow-legged frog or northern DPS of the mountain yellow-legged frog through reduction in water depth necessary for the frog to complete its life cycle. Additionally, the stocking of introduced fishes could prevent or preclude recolonization of otherwise available breeding or overwintering habitats, which is necessary for range expansion and recovery of Sierra Nevada yellow-legged frog and northern DPS of the mountain yellow-legged frog metapopulations.

Activities that may affect critical habitat, when carried out, funded, or authorized by a Federal agency, should result in consultation for the Yosemite toad. These activities include, but are not limited to:

(1) Actions that significantly alter water chemistry or temperature. Such activities could include, but are not limited to, release of chemicals, biological pollutants, or heated effluents into the surface water or into connected ground water at a point source or by dispersed release (non-point source). These activities could alter water conditions beyond the tolerances of the Yosemite toad and result in direct or cumulative adverse effects to these individuals and their life cycles.

(2) Actions that would significantly increase sediment deposition within the wet meadow systems and other aquatic features utilized by Yosemite toad or disturb upland foraging and dispersal habitat. Such activities could include, but are not limited to, excessive sedimentation from livestock overgrazing, road construction, inappropriate fuels management activities, channel alteration, inappropriate timber harvest activities, unauthorized off-road vehicle or recreational use, and other watershed and floodplain disturbances. These activities could eliminate or reduce the habitat necessary for the growth and reproduction of the Yosemite toad by increasing the sediment deposition to levels that would adversely affect a toad's ability to complete its life cycle.

(3) Actions that would significantly alter wet meadow or pond morphology, geometry, or inundation period. Such activities could include, but are not limited to, livestock overgrazing, channelization, impoundment, road and bridge construction, mining, dredging, and inappropriate vegetation management. These activities may lead to changes in the hydrologic function of the wet meadow or pond and alter the timing, duration, waterflows, and levels that would degrade or eliminate Yosemite toad habitat. These actions can also lead to increased sedimentation and degradation in water quality to levels that are beyond the tolerances of the Yosemite toad.

(4) Actions that eliminate upland foraging or overwintering habitat, as well as dispersal habitat, for the Yosemite toad. Such activities could include, but are not limited to, livestock overgrazing, road construction, recreational development, timber harvest activities, unauthorized off-road vehicle or recreational use, and other watershed and

floodplain disturbances.

## **Exemptions**

### *Application of Section 4(a)(3) of the Act*

The Sikes Act Improvement Act of 1997 (Sikes Act) (16 U.S.C. 670a) required each military installation that includes land and water suitable for the conservation and management of natural resources to complete an integrated natural resources management plan (INRMP) by November 17, 2001. An INRMP integrates implementation of the military mission of the installation with stewardship of the natural resources found on the base. Each INRMP includes:

- (1) An assessment of the ecological needs on the installation, including the need to provide for the conservation of listed species;
- (2) A statement of goals and priorities;
- (3) A detailed description of management actions to be implemented to provide for these ecological needs; and
- (4) A monitoring and adaptive management plan.

Among other things, each INRMP must, to the extent appropriate and applicable, provide for fish and wildlife management; fish and wildlife habitat enhancement or modification; wetland protection, enhancement, and restoration where necessary to support fish and wildlife; and enforcement of applicable natural resource laws.

The National Defense Authorization Act for Fiscal Year 2004 (Pub. L. 108–136) amended the Act to limit areas eligible for designation as critical habitat. Specifically, section 4(a)(3)(B)(i) of the Act (16 U.S.C. 1533(a)(3)(B)(i)) now provides: “The Secretary shall not designate as critical habitat any lands or other geographical areas owned or controlled by the Department of Defense, or designated for its use, that are subject to an integrated natural resources management plan prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation.”

There are no Department of Defense lands with a completed INRMP within the proposed critical habitat designations.

## **Exclusions**

### *Application of Section 4(b)(2) of the Act*

Section 4(b)(2) of the Act states that the Secretary shall designate and make revisions to critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless he determines, based on the best scientific data available, that the failure to designate such area as critical

habitat will result in the extinction of the species. In making that determination, the statute on its face, as well as the legislative history, are clear that the Secretary has broad discretion regarding which factor(s) to use and how much weight to give to any factor.

Under section 4(b)(2) of the Act, we may exclude an area from designated critical habitat based on economic impacts, impacts on national security, or any other relevant impacts. In considering whether to exclude a particular area from the designation, we identify the benefits of including the area in the designation, identify the benefits of excluding the area from the designation, and evaluate whether the benefits of exclusion outweigh the benefits of inclusion. If the analysis indicates that the benefits of exclusion outweigh the benefits of inclusion, the Secretary may exercise his discretion to exclude the area only if such exclusion would not result in the extinction of the species.

#### Exclusions Based on Economic Impacts

Under section 4(b)(2) of the Act, we consider the economic impacts of specifying any particular area as critical habitat. In order to consider economic impacts, we are preparing an analysis of the economic impacts of the proposed critical habitat designation and related factors. The proposed critical habitat areas include Federal, State, and private lands, some of which are used for livestock grazing, timber harvest, and recreation (for example, camping, hiking, and fishing). Other land uses that may be affected will be identified as we develop a draft economic analysis for the proposed designation.

We will announce the availability of the draft economic analysis as soon as it is completed, at which time we will seek public review and comment. At that time, copies of the draft economic analysis will be available for downloading from the Internet at <http://www.regulations.gov>, or by contacting the Sacramento Fish and Wildlife Office directly (see **FOR FURTHER INFORMATION CONTACT**). During the development of a final designation, we will consider economic impacts, public comments, and other new information, and areas may be excluded from the final critical habitat designation under section 4(b)(2) of the Act and our implementing regulations at 50 CFR 424.19.

#### Exclusions Based on National Security Impacts

Under section 4(b)(2) of the Act, we consider whether there are lands owned or managed by the Department of Defense where a national security impact might exist. In preparing this proposal, we have determined that the lands within the proposed designation of critical habitat for Sierra Nevada yellow-legged frog, northern DPS of the mountain yellow-legged frog, and Yosemite toad are not owned or managed by the Department of Defense, and, therefore, we anticipate no impact on national security. Consequently, the Secretary is not currently seeking to exercise his discretion to exclude any areas from the final designation based on impacts on national security.

#### Exclusions Based on Other Relevant Impacts

Under section 4(b)(2) of the Act, we consider any other relevant impacts, in addition to economic impacts and impacts on national security. We consider a number of factors, including whether the landowners have developed any habitat conservation plans (HCPs) or other management plans for the area, or whether there are conservation partnerships that would be encouraged by designation of, or exclusion from, critical habitat. In addition, we look at any tribal issues, and consider the government-to-government relationship of the United States with tribal entities. We also consider any social impacts that might occur because of the designation.

In preparing this proposal, we have determined that there are currently no HCPs or other management plans for Sierra Nevada yellow-legged frog, northern DPS of the mountain yellow-legged frog, or Yosemite toad, and the proposed designation does not include any tribal lands or trust resources. Therefore, we anticipate no impact to tribal lands, partnerships, or HCPs from this proposed critical habitat designation. Accordingly, the Secretary is not currently seeking to exercise his discretion to exclude any areas from the final designation based on other relevant impacts.

## **Peer Review**

In accordance with our joint policy on peer review published in the **Federal Register** on July 1, 1994 (59 FR 34270), we will seek the expert opinions of at least three appropriate and independent specialists regarding this proposed rule. The purpose of



such review is to ensure that our proposed actions are based on scientifically sound data, assumptions, and analyses. We have invited these peer reviewers to comment, during the public comment period, on the specific assumptions and conclusions in this proposed designation of critical habitat.

We will consider all comments and information we receive during the comment period on this proposed rule during preparation of a final determination. Accordingly, the final decision may differ from this proposal.

### **Public Hearings**

Section 4(b)(5) of the Act provides for one or more public hearings on this proposal, if requested. Requests must be received within 45 days after the date of publication of this proposed rule in the **Federal Register**. Such requests must be sent to the address shown in the **FOR FURTHER INFORMATION CONTACT**. We will schedule public hearings on this proposal, if any are requested, and announce the dates, times, and places of those hearings, as well as how to obtain reasonable accommodations, in the **Federal Register** and local newspapers at least 15 days before the hearing.

### **Required Determinations**

Our draft economic analysis will be completed after this proposed rule is published. Therefore, we will defer our Regulatory Flexibility Act (5 U.S.C. 601 et seq.),

Energy Supply, Distribution, or Use—Executive Order 13211, Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.), and Small Business Regulatory Enforcement Fairness Act (SBREFA), findings until after this analysis is done.

*Regulatory Planning and Review (Executive Orders 12866 and 13563)*

Executive Order 12866 provides that the Office of Information and Regulatory Affairs (OIRA) will review all significant rules. The Office of Information and Regulatory Affairs has determined that this rule is not significant.

Executive Order 13563 reaffirms the principles of E.O. 12866 while calling for improvements in the nation's regulatory system to promote predictability, to reduce uncertainty, and to use the best, most innovative, and least burdensome tools for achieving regulatory ends. The executive order directs agencies to consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public where these approaches are relevant, feasible, and consistent with regulatory objectives. E.O. 13563 emphasizes further that regulations must be based on the best available science and that the rulemaking process must allow for public participation and an open exchange of ideas. We have developed this rule in a manner consistent with these requirements.

*Regulatory Flexibility Act (5 U.S.C. 601 et seq.)*

Under the Regulatory Flexibility Act (RFA; 5 U.S.C. 601 *et seq.*) as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996 (5 U.S.C 801 *et seq.*), whenever an agency must publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effects of the rule on small entities (small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of the agency certifies the rule will not have a significant economic impact on a substantial number of small entities. The SBREFA amended the RFA to require Federal agencies to provide a certification statement of the factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities.

According to the Small Business Administration, small entities include small organizations such as independent nonprofit organizations; small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents; and small businesses (13 CFR 121.201). Small businesses include such businesses as manufacturing and mining concerns with fewer than 500 employees, wholesale trade entities with fewer than 100 employees, retail and service businesses with less than \$5 million in annual sales, general and heavy construction businesses with less than \$27.5 million in annual business, special trade contractors doing less than \$11.5 million in annual business, and forestry and logging operations with fewer than 500 employees and annual business less than \$7 million. To determine whether small entities may be affected, we will consider the types of activities that might trigger regulatory

impacts under this designation as well as types of project modifications that may result. In general, the term “significant economic impact” is meant to apply to a typical small business firm’s business operations.

Importantly, the incremental impacts of a rule must be *both* significant and substantial to prevent certification of the rule under the RFA and to require the preparation of an initial regulatory flexibility analysis. If a substantial number of small entities are affected by the proposed critical habitat designation, but the per-entity economic impact is not significant, the Service may certify. Likewise, if the per-entity economic impact is likely to be significant, but the number of affected entities is not substantial, the Service may also certify.

Under the RFA, as amended, and following recent court decisions, Federal agencies are only required to evaluate the potential incremental impacts of rulemaking on those entities directly regulated by the rulemaking itself, and not the potential impacts to indirectly affected entities. The regulatory mechanism through which critical habitat protections are realized is section 7 of the Act, which requires Federal agencies, in consultation with the Service, to ensure that any action authorized, funded, or carried by the Agency is not likely to adversely modify critical habitat. Therefore, only Federal action agencies are directly subject to the specific regulatory requirement (avoiding destruction and adverse modification) imposed by critical habitat designation. Under these circumstances, it is our position that only Federal action agencies will be directly regulated by this designation. Therefore, because Federal agencies are not small entities,

the Service may certify that the proposed critical habitat rule will not have a significant economic impact on a substantial number of small entities.

We acknowledge, however, that in some cases, third-party proponents of the action subject to permitting or funding may participate in a section 7 consultation, and thus may be indirectly affected. We believe it is good policy to assess these impacts if we have sufficient data before us to complete the necessary analysis, whether or not this analysis is strictly required by the RFA. While this proposed regulation does not directly regulate these entities, in our draft economic analysis we will conduct a brief evaluation of the potential number of third parties participating in consultations on an annual basis in order to ensure a more complete examination of the incremental effects of this proposed rule in the context of the RFA.

In conclusion, we believe that, based on our interpretation of directly regulated entities under the RFA and relevant case law, this proposed designation of critical habitat would only directly regulate Federal agencies, which are not by definition small business entities. As such, we certify that, if promulgated, this designation of critical habitat would not have a significant economic impact on a substantial number of small business entities. Therefore, an initial regulatory flexibility analysis is not required. However, though not necessarily required by the RFA, in our draft economic analysis for this proposal we will consider and evaluate the potential effects to third parties that may be involved with consultations with Federal action agencies related to this action.

*Energy Supply, Distribution, or Use—Executive Order 13211*

Executive Order 13211 (Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use) requires agencies to prepare Statements of Energy Effects when undertaking certain actions. We do not expect that, if adopted as proposed, the designation of this proposed critical habitat would significantly affect energy supplies, distribution, or use. The degree of spatial overlap between proposed critical habitat and extant hydropower is insignificant, and normal operations of these resources within current guidelines are not anticipated to adversely modify critical habitat. Therefore, this action is not a significant energy action, and no Statement of Energy Effects is required. However, we will further evaluate this issue as we conduct our economic analysis, and review and revise this assessment as warranted.

*Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.)*

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 *et seq.*), we make the following findings:

(1) This rule would not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute, or regulation that would impose an enforceable duty upon State, local, or tribal governments, or the private sector, and includes both “Federal intergovernmental mandates” and “Federal private sector mandates.” These terms are defined in 2 U.S.C. 658(5)–(7). “Federal intergovernmental

mandate” includes a regulation that “would impose an enforceable duty upon State, local, or tribal governments” with two exceptions. It excludes “a condition of Federal assistance.” It also excludes “a duty arising from participation in a voluntary Federal program,” unless the regulation “relates to a then-existing Federal program under which \$500,000,000 or more is provided annually to State, local, and tribal governments under entitlement authority,” if the provision would “increase the stringency of conditions of assistance” or “place caps upon, or otherwise decrease, the Federal Government’s responsibility to provide funding,” and the State, local, or tribal governments “lack authority” to adjust accordingly. At the time of enactment, these entitlement programs were: Medicaid; Aid to Families with Dependent Children work programs; Child Nutrition; Food Stamps; Social Services Block Grants; Vocational Rehabilitation State Grants; Foster Care, Adoption Assistance, and Independent Living; Family Support Welfare Services; and Child Support Enforcement. “Federal private sector mandate” includes a regulation that “would impose an enforceable duty upon the private sector, except (i) a condition of Federal assistance or (ii) a duty arising from participation in a voluntary Federal program.”

The designation of critical habitat does not impose a legally binding duty on non-Federal Government entities or private parties. Under the Act, the only regulatory effect is that Federal agencies must ensure that their actions do not destroy or adversely modify critical habitat under section 7. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the

legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandates Reform Act would not apply, nor would critical habitat shift the costs of the large entitlement programs listed above onto State governments.

(2) We do not believe that this rule would significantly or uniquely affect small governments because a very tiny fraction of designated critical habitat is within the jurisdiction of small governments. Therefore, a Small Government Agency Plan is not required. However, we will further evaluate this issue as we conduct our economic analysis, and review and revise this assessment if appropriate.

#### *Takings—Executive Order 12630*

In accordance with Executive Order 12630 (Government Actions and Interference with Constitutionally Protected Private Property Rights), we have analyzed the potential takings implications of designating critical habitat for Sierra Nevada yellow-legged frog, the northern DPS of the mountain yellow-legged frog, and the Yosemite toad in a takings implications assessment. Critical habitat designation does not affect landowner actions that do not require Federal funding or permits, nor does it preclude development of habitat conservation programs or issuance of incidental take permits to permit actions that do require Federal funding or permits to go forward. The takings implications



assessment concludes that this designation of critical habitat for the Sierra Nevada yellow-legged frog, the northern DPS of the mountain yellow-legged frog, and the Yosemite toad does not pose significant takings implications for lands within or affected by the designation.

#### *Federalism—Executive Order 13132*

In accordance with Executive Order 13132 (Federalism), this proposed rule does not have significant Federalism effects. A federalism impact summary statement is not required. In keeping with Department of the Interior and Department of Commerce policy, we requested information from, and coordinated development of, this proposed critical habitat designation with appropriate State resource agencies in California. The designation of critical habitat in areas currently occupied by the Sierra Nevada yellow-legged frog, the northern DPS of the mountain yellow-legged frog, and the Yosemite toad may impose nominal additional regulatory restrictions to those currently in place and, therefore, may have little incremental impact on State and local governments and their activities. The designation may have some benefit to these governments because the areas that contain the physical or biological features essential to the conservation of the species are more clearly defined, and the elements of the features of the habitat necessary to the conservation of the species are specifically identified. This information does not alter where and what federally sponsored activities may occur. However, it may assist local governments in long-range planning (rather than having them wait for case-by-case section 7 consultations to occur).

Where State and local governments require approval or authorization from a Federal agency for actions that may affect critical habitat, consultation under section 7(a)(2) would be required. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency.

*Civil Justice Reform—Executive Order 12988*

In accordance with Executive Order 12988 (Civil Justice Reform), the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and that it meets the applicable standards set forth in sections 3(a) and 3(b)(2) of the Order.

We are designating critical habitat in accordance with the provisions of the Act. To assist the public in understanding the habitat needs of the species, the rule identifies the elements of physical or biological features essential to the conservation of the species.

The designated areas of critical habitat are presented on maps, and the rule provides several options for the interested public to obtain more detailed location information, if desired.

*Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.)*

This rule does not contain any new collections of information that require

approval by OMB under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*). This rule will not impose recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

*National Environmental Policy Act (42 U.S.C. 4321 et seq.)*

It is our position that, outside the jurisdiction of the U.S. Court of Appeals for the Tenth Circuit, we do not need to prepare environmental analyses pursuant to NEPA (42 U.S.C. 4321 *et seq.*) in connection with designating critical habitat under the Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This position was upheld by the U.S. Court of Appeals for the Ninth Circuit (*Douglas County v. Babbitt*, 48 F.3d 1495 (9th Cir. 1995), cert. denied 516 U.S. 1042 (1996)).

*Clarity of the Rule*

We are required by Executive Orders 12866 and 12988 and by the Presidential Memorandum of June 1, 1998, to write all rules in plain language. This means that each rule we publish must:

- (1) Be logically organized;
- (2) Use the active voice to address readers directly;

- (3) Use clear language rather than jargon;
- (4) Be divided into short sections and sentences; and
- (5) Use lists and tables wherever possible.

If you feel that we have not met these requirements, send us comments by one of the methods listed in the **ADDRESSES** section. To better help us revise the rule, your comments should be as specific as possible. For example, you should tell us the numbers of the sections or paragraphs that are unclearly written, which sections or sentences are too long, the sections where you feel lists or tables would be useful, etc.

#### *Government-to-Government Relationship with Tribes*

In accordance with the President's memorandum of April 29, 1994 (Government-to-Government Relations with Native American Tribal Governments; 59 FR 22951), Executive Order 13175 (Consultation and Coordination With Indian Tribal Governments), and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal tribes on a government-to-government basis. In accordance with Secretarial Order 3206 of June 5, 1997 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act), we readily acknowledge our responsibilities to work directly with tribes in developing programs for healthy ecosystems, to acknowledge that tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to tribes.

We determined that there are no tribal lands that are occupied by the Sierra Nevada yellow-legged frog, the northern DPS of the mountain yellow-legged frog, or the Yosemite toad at the time of listing that contain the features essential to conservation of the species, and no tribal lands unoccupied by the Sierra Nevada yellow-legged frog, the northern DPS of the mountain yellow-legged frog, and the Yosemite toad that are essential for the conservation of the species. Therefore, we are not proposing to designate critical habitat for the Sierra Nevada yellow-legged frog, the northern DPS of the mountain yellow-legged frog, and the Yosemite toad on tribal lands.

### **References Cited**

A complete list of references cited in this rulemaking is available on the Internet at <http://www.regulations.gov> and upon request from the Sacramento Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

### **Authors**

The primary authors of this package are the staff members of the Sacramento Fish and Wildlife Office.

### **List of Subjects in 50 CFR Part 17**

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

### **Proposed Regulation Promulgation**

Accordingly, we propose to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

#### **PART 17—[AMENDED]**

1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 1531–1544; and 4201–4245, unless otherwise noted.

2. In § 17.95, amend paragraph (d) by adding entries for “Mountain Yellow-legged Frog (*Rana muscosa*), Northern California DPS”, “Sierra Nevada Yellow-legged Frog (*Rana sierrae*)”, and “Yosemite Toad (*Anaxyrus canorus*)” in the same alphabetical order that these species appear in the table at § 17.11(h), to read as follows:

#### **§ 17.95 Critical habitat—fish and wildlife.**

\* \* \* \* \*

(d) *Amphibians*.

\* \* \* \* \*

Mountain Yellow-legged Frog (*Rana muscosa*), Northern California DPS

(1) Critical habitat units are depicted for Fresno and Tulare Counties, California, on the maps below.

(2) Within these areas, the primary constituent elements of the physical or biological features essential to the conservation of the northern DPS of the mountain yellow-legged frog consist of:

(i) *Aquatic habitat for breeding and rearing*. Habitat that consists of permanent water bodies, or those that are either hydrologically connected with, or close to, permanent water bodies, including, but not limited to, lakes, streams, rivers, tarns, perennial creeks (or permanent plunge pools within intermittent creeks), pools (such as a body of impounded water contained above a natural dam), and other forms of aquatic habitat. This habitat must:

(A) Be of sufficient depth not to freeze solid (to the bottom) during the winter (no less than 1.7 m (5.6 ft), but generally greater than 2.5 m (8.2 ft), and optimally 5 m (16.4 ft) or deeper (unless some other refuge from freezing is available)).

(B) Maintain a natural flow pattern, including periodic flooding, and have functional community dynamics in order to provide sufficient productivity and a prey base to support the growth and development of rearing tadpoles and metamorphs.

(C) Be free of fish and other introduced predators.

(D) Maintain water during the entire tadpole growth phase (a minimum of 2 years). During periods of drought, these breeding sites may not hold water long enough for individuals to complete metamorphosis, but they may still be considered essential breeding habitat if they provide sufficient habitat in most years to foster recruitment within the reproductive lifespan of individual adult frogs.

(E) Contain:

(1) Bank and pool substrates consisting of varying percentages of soil or silt, sand, gravel, cobble, rock, and boulders;

(2) Shallower lake microhabitat with solar exposure to warm lake areas and to foster primary productivity of the food web;

(3) Open gravel banks and rocks projecting above or just beneath the surface of the water for adult sunning posts;

(4) Aquatic refugia, including pools with bank overhangs, downfall logs or branches, or rocks to provide cover from predators; and

(5) Sufficient food resources to provide for tadpole growth and development.



(ii) *Aquatic nonbreeding habitat (including overwintering habitat)*. This habitat may contain the same characteristics as aquatic breeding and rearing habitat (often at the same locale), and may include lakes, ponds, tarns, streams, rivers, creeks, plunge pools within intermittent creeks, seeps, and springs that may not hold water long enough for the species to complete its aquatic life cycle. This habitat provides for shelter, foraging, predator avoidance, and aquatic dispersal of juvenile and adult mountain yellow-legged frogs. Aquatic nonbreeding habitat contains:

(A) Bank and pool substrates consisting of varying percentages of soil or silt, sand, gravel, cobble, rock, and boulders;

(B) Open gravel banks and rocks projecting above or just beneath the surface of the water for adult sunning posts;

(C) Aquatic refugia, including pools with bank overhangs, downfall logs or branches, or rocks to provide cover from predators;

(D) Sufficient food resources to provide for tadpole growth and development;

(E) Overwintering refuge, where thermal properties of the microhabitat protect hibernating life stages from winter freezing, such as crevices or holes within granite, in and near shore; and/or

(F) Streams, stream reaches, or wet meadow habitats that can function as corridors for movement between aquatic habitats used as breeding or foraging sites.

(iii) *Upland areas*.

(A) Upland areas adjacent to or surrounding breeding and nonbreeding aquatic habitat that provide area for feeding and movement by mountain yellow-legged frogs.

(1) For stream habitats, this area extends 25 m (82 ft) from the bank or shoreline.

(2) In areas that contain riparian habitat and upland vegetation (for example, mixed conifer, ponderosa pine, montane hardwood conifer, and montane riparian woodlands), the canopy overstory should be sufficiently thin (generally not to exceed 85 percent) to allow sunlight to reach the aquatic habitat and thereby provide basking areas for the species.

(3) For areas between proximate (within 300m (984 ft)) water bodies (typical of some high mountain lake habitats), the upland area extends from the bank or shoreline between such water bodies.

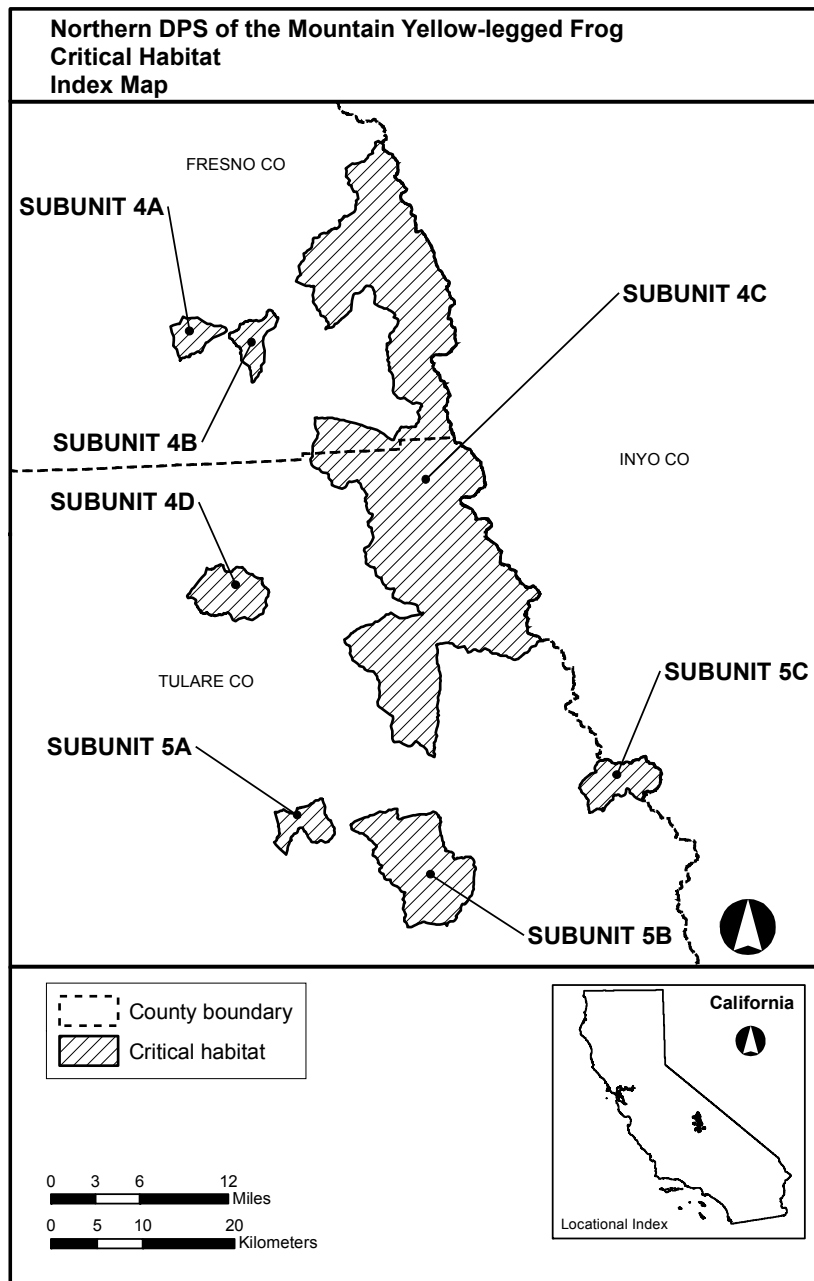
(4) Within mesic habitats such as lake and meadow systems, the entire area of physically contiguous or proximate habitat is suitable for dispersal and foraging.

(B) Upland areas (catchments) adjacent to and surrounding both breeding and nonbreeding aquatic habitat that provide for the natural hydrologic regime (water quantity) of aquatic habitats. These upland areas should also allow for the maintenance of sufficient water quality to provide for the various life stages of the frog and its prey base.

(3) Critical habitat does not include manmade structures (such as buildings, aqueducts, runways, roads, and other paved areas) and the land on which they are located existing within the legal boundaries on the effective date of this rule.

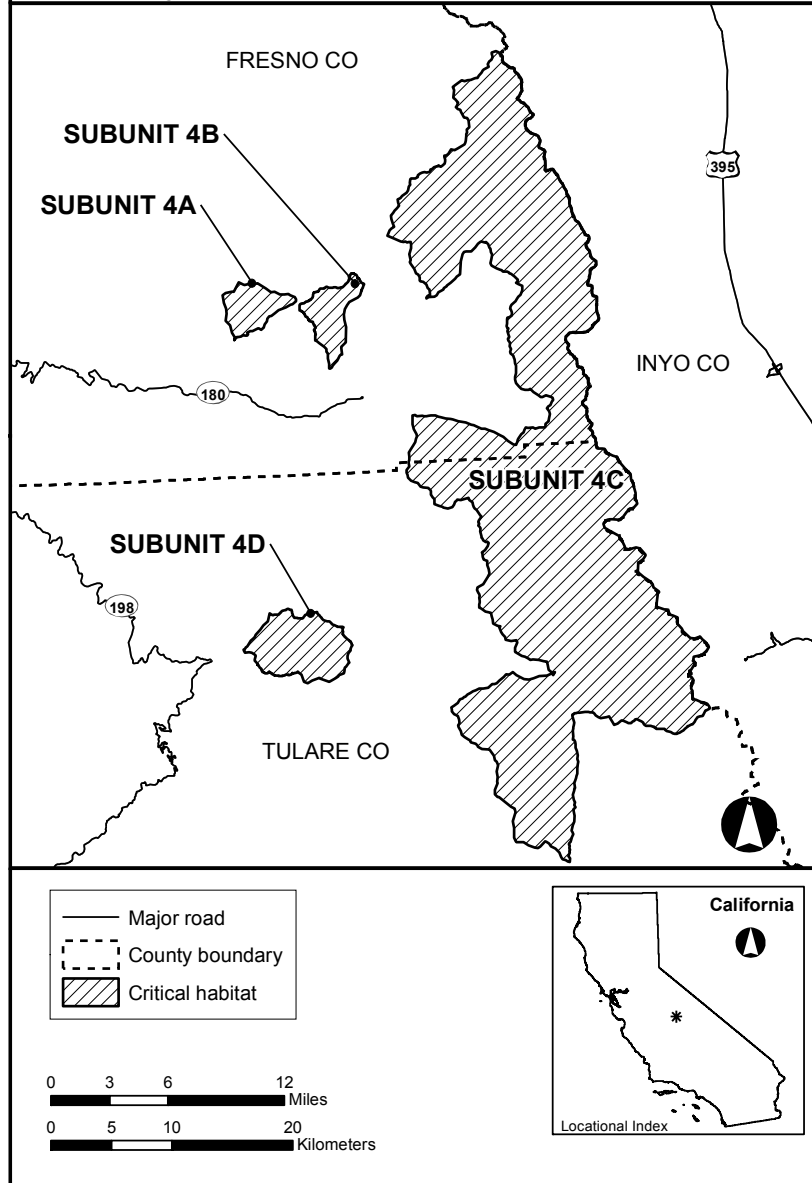
(4) *Critical habitat map units.* The critical habitat subunit maps were originally created using ESRI's ArcGIS Desktop 10 software and then exported as .emf files. All maps are in the North American Datum of 1983 (NAD83), Universal Transverse Mercator (UTM) Zone 10N. The California County Boundaries dataset (Teale Data Center), and the USA Minor Highways, USA Major Roads, and USA Rivers and Streams layers (ESRI's 2010 StreetMap Data) were incorporated as base layers to assist in the geographic location of the critical habitat subunits. The coordinates or plot points or both on which each map is based are available to the public on <http://regulations.gov> at Docket No. FWS-R8-ES-2012-0074, on our Internet site (<http://www.fws.gov/sacramento>), and at the Sacramento Fish and Wildlife Office, 2800 Cottage Way Room W-2605, Sacramento CA 95825.

(5) Index map for northern DPS of the mountain yellow-legged frog critical habitat follows:



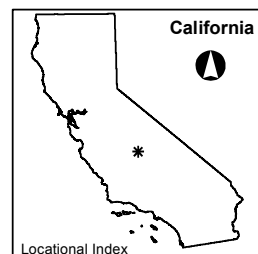
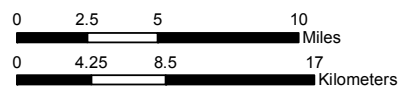
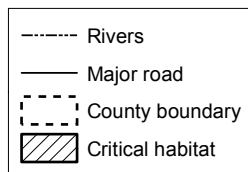
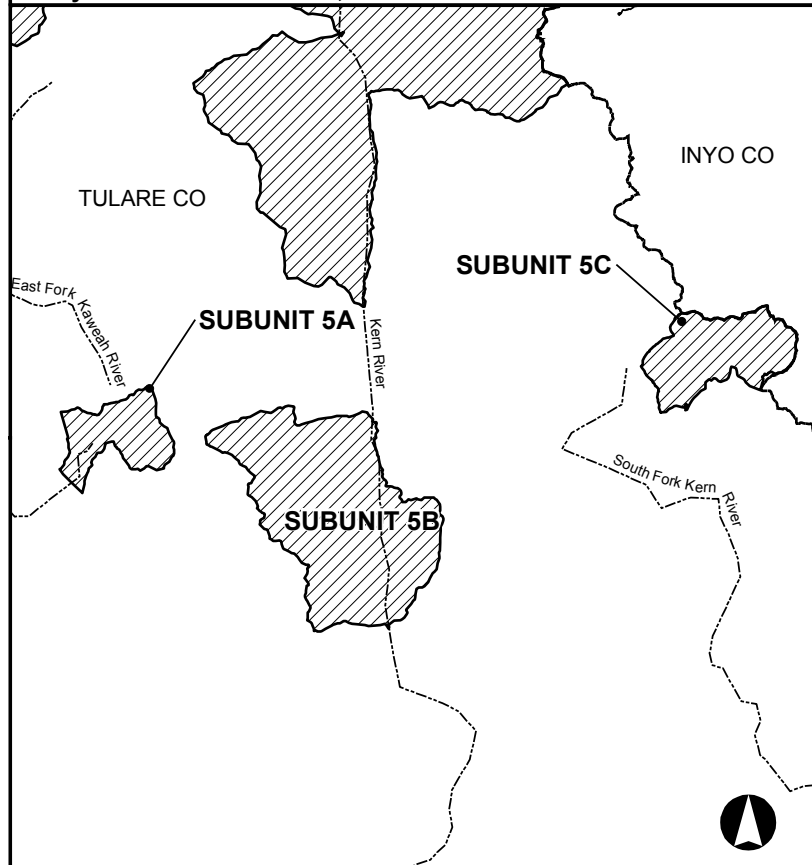
(6) Unit 4 (Subunits 4A, 4B, 4C, 4D), Fresno, Inyo, and Tulare Counties,  
California. Map follows:

**Northern DPS of the Mountain Yellow-legged Frog Critical Habitat  
Unit 4: (Subunits 4A, 4B, 4C, 4D)  
Fresno, Inyo, and Tulare Counties, California**



(7) Unit 5 (Subunits 5A, 5B, 5C), Tulare and Inyo Counties, California. Map follows:

**Northern DPS of the Mountain Yellow-legged Frog Critical Habitat  
Unit 5: (Subunits 5A, 5B, 5C)  
Inyo and Tulare Counties, California**





\* \* \* \* \*

### Sierra Nevada Yellow-legged Frog (*Rana sierrae*)

(1) Critical habitat units are depicted for Lassen, Butte, Plumas, Sierra, Nevada, Placer, El Dorado, Amador, Alpine, Calaveras, Tuolumne, Mono, Mariposa, Madera, Fresno, and Inyo Counties, California, on the maps below.

(2) Within these areas, the primary constituent elements of the physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog consist of:

(i) *Aquatic habitat for breeding and rearing.* Habitat that consists of permanent water bodies, or those that are either hydrologically connected with, or close to, permanent water bodies, including, but not limited to, lakes, streams, rivers, tarns, perennial creeks (or permanent plunge pools within intermittent creeks), pools (such as a body of impounded water contained above a natural dam), and other forms of aquatic habitat. This habitat must:

(A) Be of sufficient depth not to freeze solid (to the bottom) during the winter (no less than 1.7 m (5.6 ft), but generally greater than 2.5 m (8.2 ft), and optimally 5 m (16.4 ft) or deeper (unless some other refuge from freezing is available)).

(B) Maintain a natural flow pattern, including periodic flooding, and have functional community dynamics in order to provide sufficient productivity and a prey base to support the growth and development of rearing tadpoles and metamorphs.

(C) Be free of fish and other introduced predators.

(D) Maintain water during the entire tadpole growth phase (a minimum of 2 years). During periods of drought, these breeding sites may not hold water long enough for individuals to complete metamorphosis, but they may still be considered essential breeding habitat if they provide sufficient habitat in most years to foster recruitment within the reproductive lifespan of individual adult frogs.

(E) Contain:

(1) Bank and pool substrates consisting of varying percentages of soil or silt, sand, gravel, cobble, rock, and boulders;

(2) Shallower lake microhabitat with solar exposure to warm lake areas and to foster primary productivity of the food web;

(3) Open gravel banks and rocks projecting above or just beneath the surface of the water for adult sunning posts;

(4) Aquatic refugia, including pools with bank overhangs, downfall logs or branches, or rocks to provide cover from predators; and

(5) Sufficient food resources to provide for tadpole growth and development.

(ii) *Aquatic nonbreeding habitat (including overwintering habitat)*. This habitat may contain the same characteristics as aquatic breeding and rearing habitat (often at the same locale), and may include lakes, ponds, tarns, streams, rivers, creeks, plunge pools within intermittent creeks, seeps, and springs that may not hold water long enough for the species to complete its aquatic life cycle. This habitat provides for shelter, foraging, predator avoidance, and aquatic dispersal of juvenile and adult mountain yellow-legged frogs. Aquatic nonbreeding habitat contains:

(A) Bank and pool substrates consisting of varying percentages of soil or silt, sand, gravel, cobble, rock, and boulders;

(B) Open gravel banks and rocks projecting above or just beneath the surface of the water for adult sunning posts;

(C) Aquatic refugia, including pools with bank overhangs, downfall logs or branches, or rocks to provide cover from predators;

(D) Sufficient food resources to provide for tadpole growth and development;

(E) Overwintering refuge, where thermal properties of the microhabitat protect hibernating life stages from winter freezing, such as crevices or holes within granite, in and near shore; and/or

(F) Streams, stream reaches, or wet meadow habitats that can function as corridors for movement between aquatic habitats used as breeding or foraging sites.

(iii) *Upland areas*.

(A) Upland areas adjacent to or surrounding breeding and nonbreeding aquatic habitat that provide area for feeding and movement by mountain yellow-legged frogs.

(1) For stream habitats, this area extends 25 m (82 ft) from the bank or shoreline.

(2) In areas that contain riparian habitat and upland vegetation (for example, mixed conifer, ponderosa pine, montane hardwood conifer, and montane riparian woodlands), the canopy overstory should be sufficiently thin (generally not to exceed 85 percent) to allow sunlight to reach the aquatic habitat and thereby provide basking areas for the species.

(3) For areas between proximate (within 300m (984 ft)) water bodies (typical of some high mountain lake habitats), the upland area extends from the bank or shoreline between such water bodies.

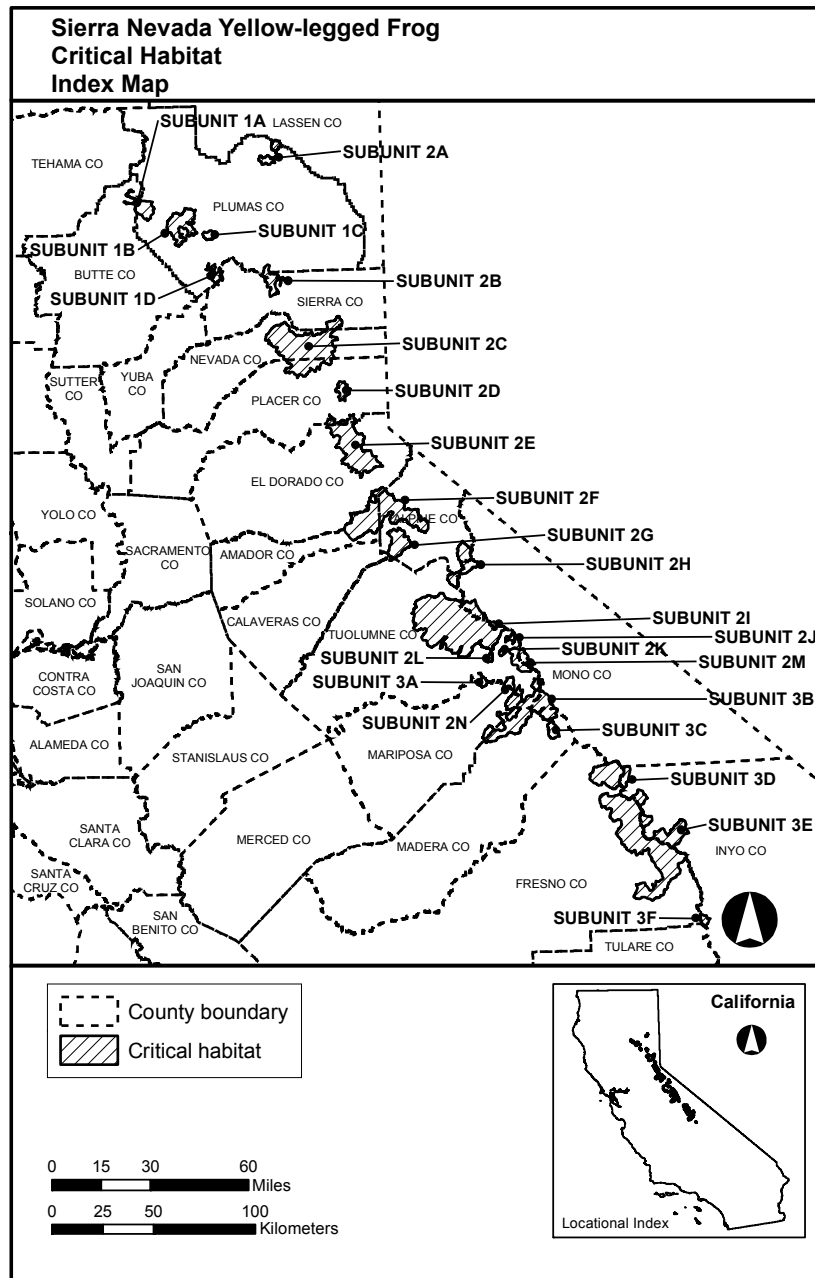
(4) Within mesic habitats such as lake and meadow systems, the entire area of physically contiguous or proximate habitat is suitable for dispersal and foraging.

(B) Upland areas (catchments) adjacent to and surrounding both breeding and nonbreeding aquatic habitat that provide for the natural hydrologic regime (water quantity) of aquatic habitats. These upland areas should also allow for the maintenance of sufficient water quality to provide for the various life stages of the frog and its prey base.

(3) Critical habitat does not include manmade structures (such as buildings, aqueducts, runways, roads, and other paved areas) and the land on which they are located existing within the legal boundaries on the effective date of this rule.

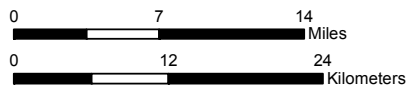
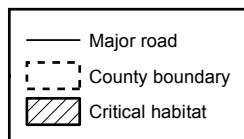
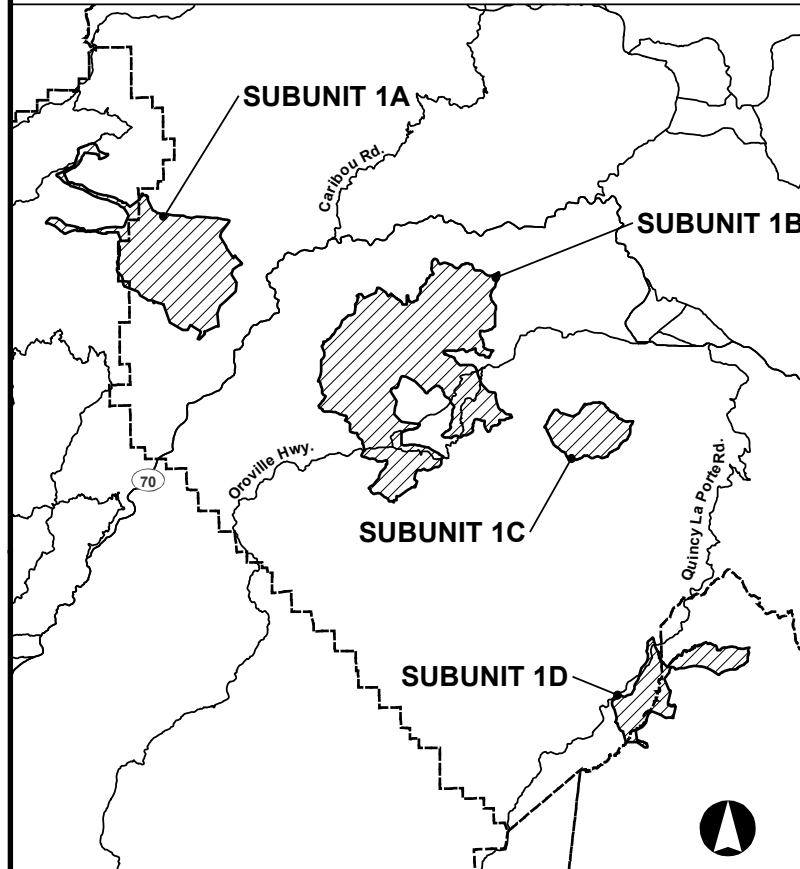
(4) *Critical habitat map units.* The critical habitat subunit maps were originally created using ESRI's ArcGIS Desktop 10 software and then exported as .emf files. All maps are in the North American Datum of 1983 (NAD83), Universal Transverse Mercator (UTM) Zone 10N. The California County Boundaries dataset (Teale Data Center), and the USA Minor Highways, USA Major Roads, and USA Rivers and Streams layers (ESRI's 2010 StreetMap Data) were incorporated as base layers to assist in the geographic location of the critical habitat subunits. The coordinates or plot points or both on which each map is based are available to the public on <http://regulations.gov> at Docket No. FWS-R8-ES-2012-0074, on our Internet site (<http://www.fws.gov/sacramento>), and at the Sacramento Fish and Wildlife Office, 2800 Cottage Way Room W-2605, Sacramento CA 95825.

(5) Index map for Sierra Nevada yellow-legged frog critical habitat follows:



(6) Unit 1 (Subunits 1A, 1B, 1C, 1D), Plumas, Butte, and Sierra Counties,  
California. Map follows:

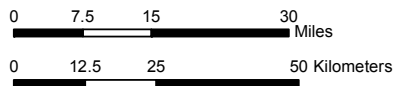
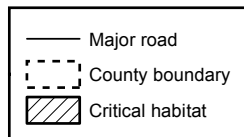
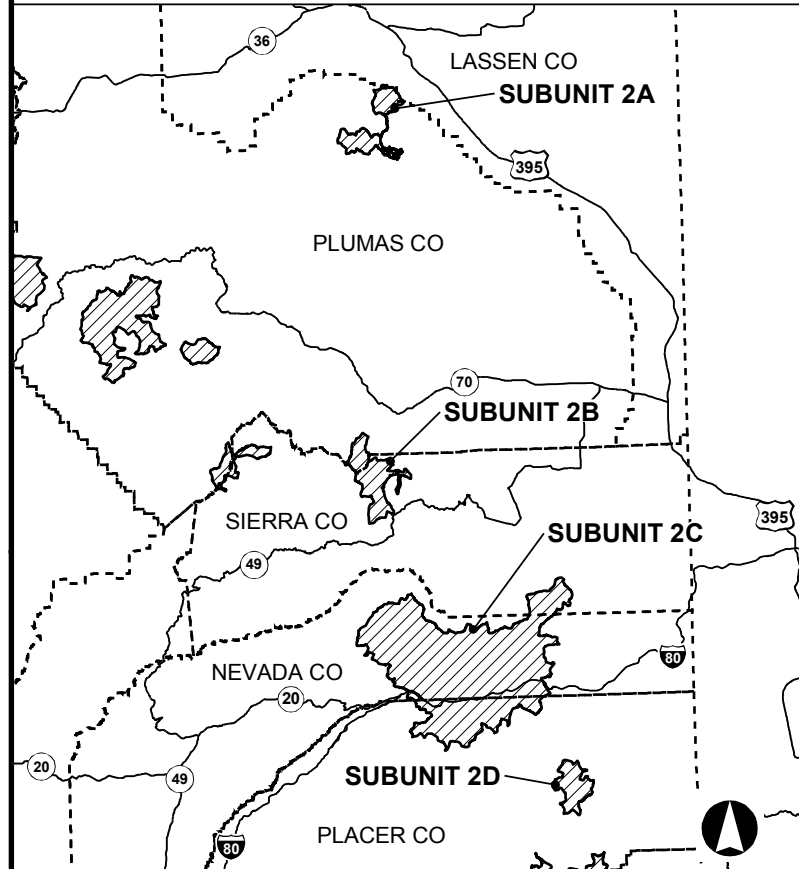
**Sierra Nevada Yellow-legged Frog Critical Habitat  
Unit 1: (Subunits 1A, 1B, 1C, 1D)  
Butte, Plumas, and Sierra Counties, California**





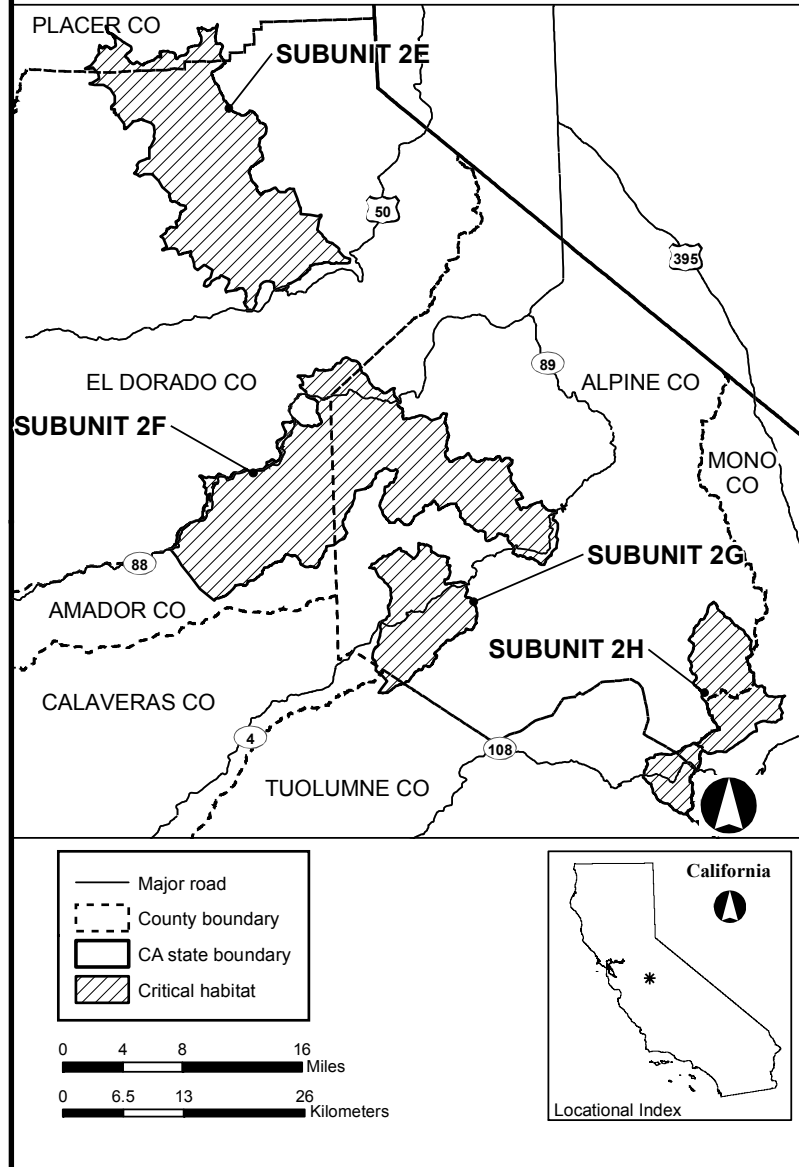
(7) Unit 2 (Subunits 2A, 2B, 2C, 2D), Lassen, Plumas, Sierra, Nevada, and Placer Counties, California. Map follows:

**Sierra Nevada Yellow-legged Frog Critical Habitat  
Unit 2: (Subunits 2A, 2B, 2C, 2D)  
Lassen, Nevada, Placer, Plumas, and Sierra Counties, California**



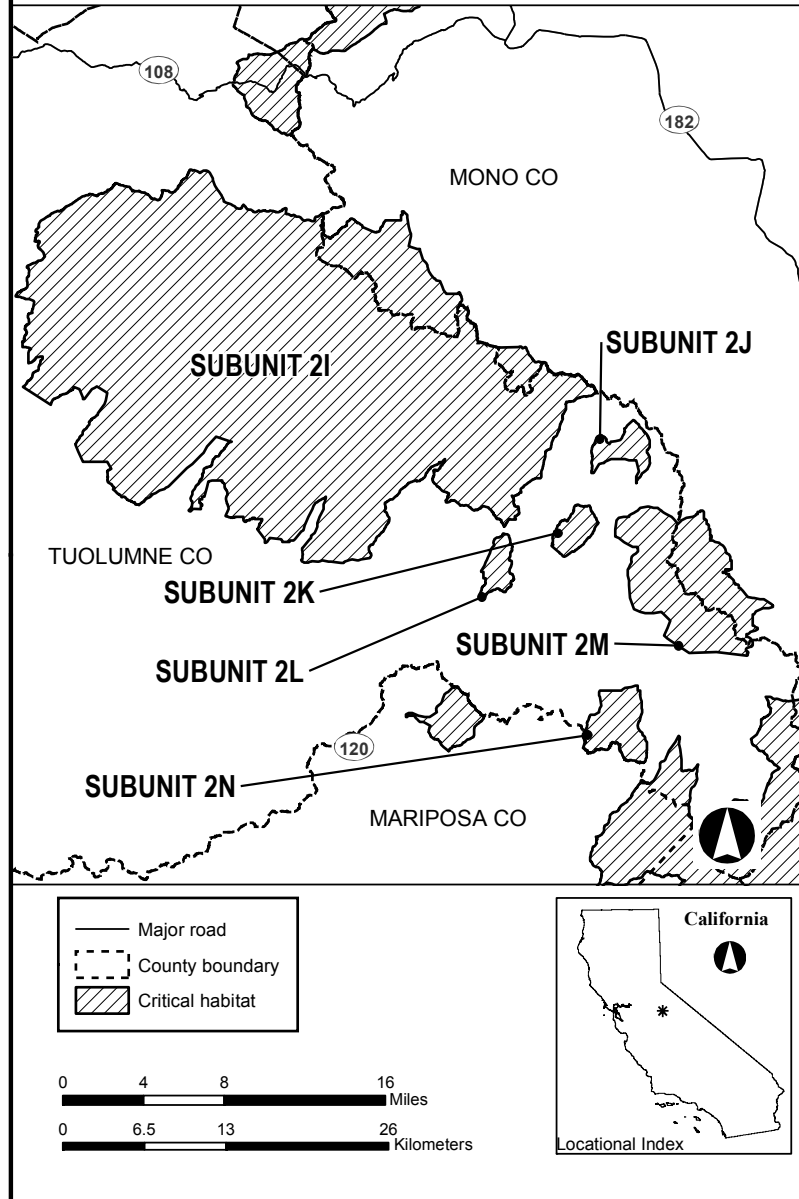
(8) Unit 2 (Subunits 2E, 2F, 2G, 2H), Placer, El Dorado, Amador, Alpine, Calaveras, Tuolumne, and Mono Counties, California. Map follows:

**Sierra Nevada Yellow-legged Frog Critical Habitat  
Unit 2: (Subunits 2E, 2F, 2G, 2H)  
Amador, Alpine, Calaveras, El Dorado, Mono, Placer,  
and Tuolumne Counties, California**



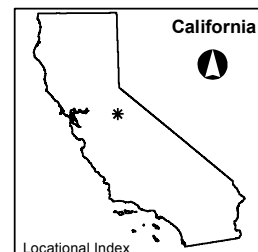
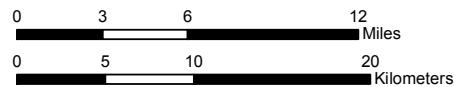
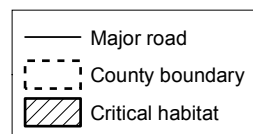
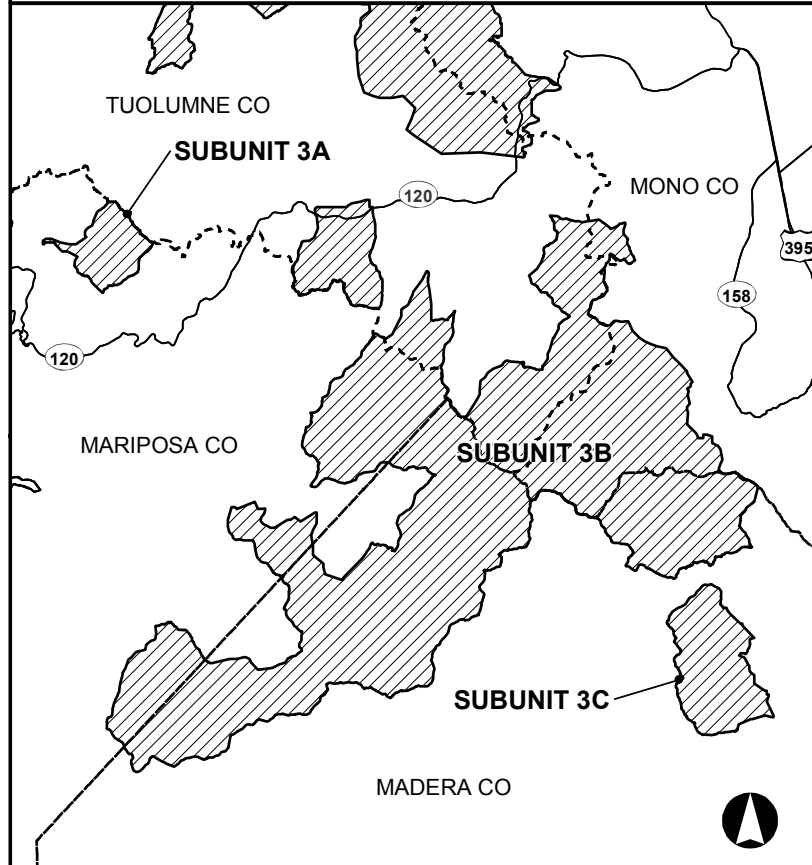
(9) Unit 2 (Subunits 2I, 2J, 2K, 2L, 2M, 2N), Tuolumne and Mono Counties,  
California. Map follows:

**Sierra Nevada Yellow-legged Frog Critical Habitat  
Unit 2: (Subunits 2I, 2J, 2K, 2L, 2M, 2N)  
Mono and Tuolumne Counties, California**



(10) Unit 3 (Subunits 3A, 3B, 3C), Tuolumne, Mariposa, Mono, and Madera Counties, California. Map follows:

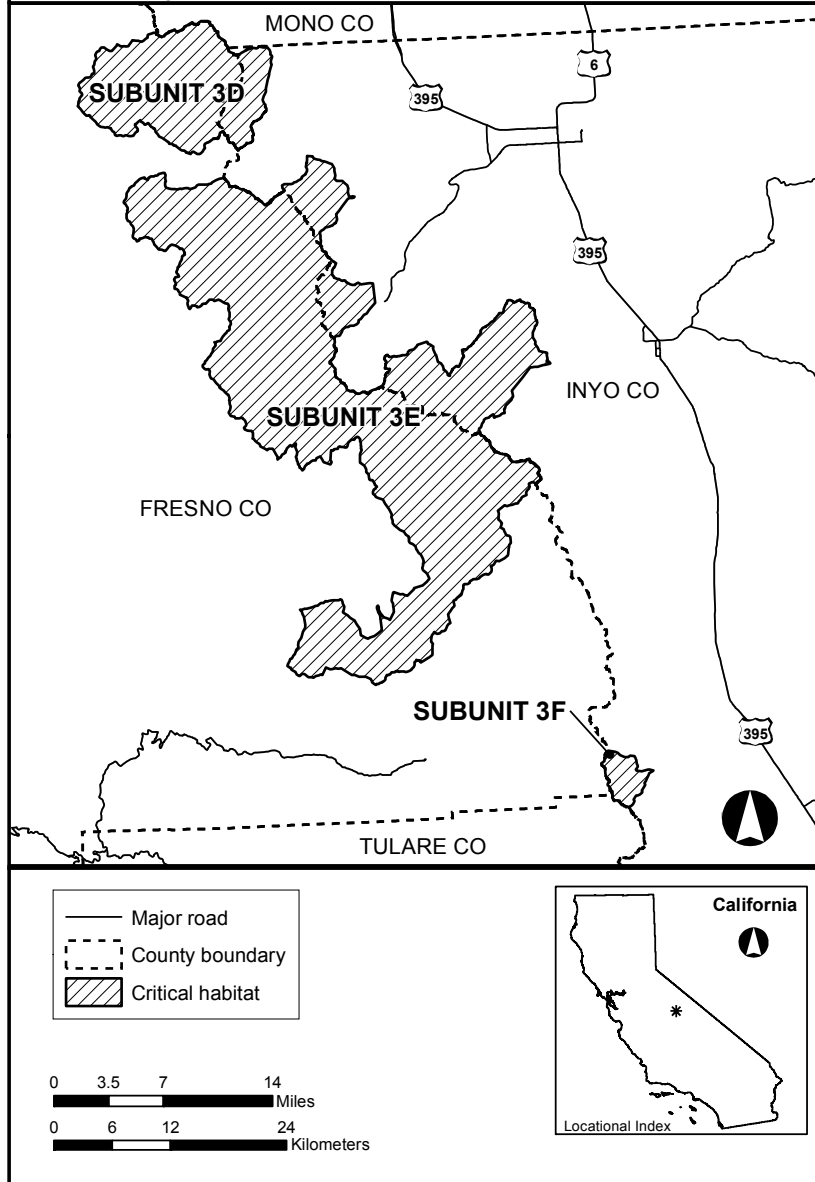
**Sierra Nevada Yellow-legged Frog Critical Habitat  
Unit 3: (Subunits 3A, 3B, 3C)  
Madera, Mariposa, Mono, and Tuolumne Counties, California**





(11) Unit 3 (Subunits 3D, 3E, 3F), Mono, Fresno, and Inyo Counties,  
California. Map follows:

**Sierra Nevada Yellow-legged Frog Critical Habitat  
Unit 3: (Subunits 3D, 3E, 3F)  
Fresno, Inyo, and Mono Counties, California**



\* \* \* \* \*

## Yosemite Toad (*Anaxyrus canorus*)

(1) Critical habitat units are depicted for Alpine, Tuolumne, Mono, Mariposa, Madera, Fresno, and Inyo Counties, California, on the maps below.

(2) Within these areas, the primary constituent elements of the physical or biological features essential to the conservation of the Yosemite toad consist of two components:

(i) *Aquatic breeding habitat.* (A) This habitat consists of bodies of fresh water, including wet meadows, slow-moving streams, shallow ponds, spring systems, and shallow areas of lakes, that:

(1) Are typically (or become) inundated during snowmelt,

(2) Hold water for a minimum of 5 weeks, and

(3) Contain sufficient food for tadpole development.

(B) During periods of drought or less than average rainfall, these breeding sites may not hold water long enough for individual Yosemite toads to complete metamorphosis, but they are still considered essential breeding habitat because they provide habitat in most years.

(ii) *Upland areas.* (A) This habitat consists of areas adjacent to or surrounding breeding habitat up to a distance of 1.25 km (0.78 mi) in most cases (that is, depending

on surrounding landscape and dispersal barriers), including seeps, springheads, and areas that provide:

- (1) Sufficient cover (including rodent burrows, logs, rocks, and other surface objects) to provide summer refugia,
  - (2) Foraging habitat,
  - (3) Adequate prey resources,
  - (4) Physical structure for predator avoidance,
  - (5) Overwintering refugia for juvenile and adult Yosemite toads,
  - (6) Dispersal corridors between aquatic breeding habitats,
  - (7) Dispersal corridors between breeding habitats and areas of suitable summer and winter refugia and foraging habitat, and/or
  - (8) The natural hydrologic regime of aquatic habitats (the catchment).
- (B) These upland areas should also allow maintain sufficient water quality to provide for the various life stages of the Yosemite toad and its prey base.

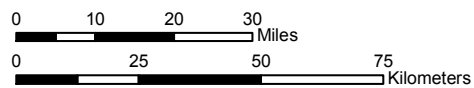
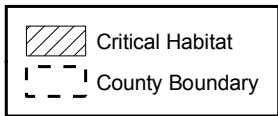
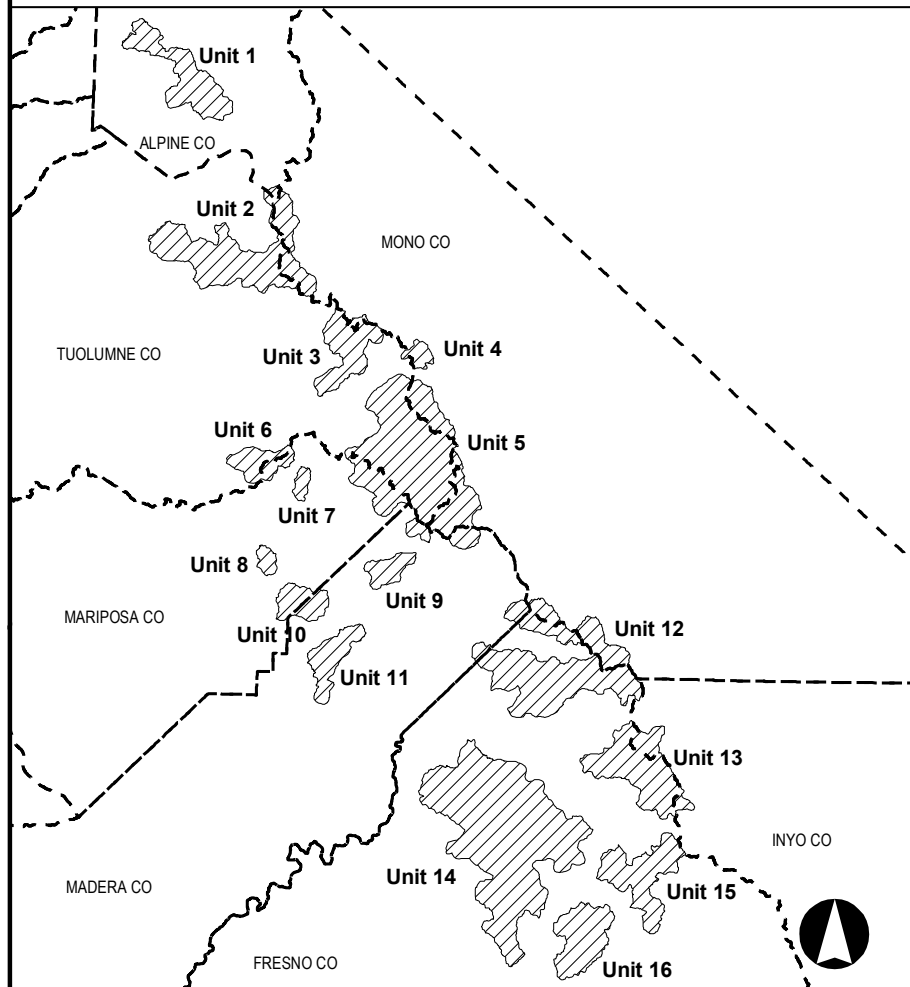
(3) Critical habitat does not include manmade structures (such as buildings, aqueducts, runways, roads, and other paved areas) and the land on which they are located existing within the legal boundaries on the effective date of this rule.

(4) *Critical habitat map units.* The critical habitat subunit maps were originally created using ESRI's ArcGIS Desktop 10 software and then exported as .emf files. All maps are in the North American Datum of 1983 (NAD83), Universal Transverse Mercator (UTM) Zone 10N. The California County Boundaries dataset (Teale Data

Center), and the USA Minor Highways, USA Major Roads, and USA Rivers and Streams layers (ESRI's 2010 StreetMap Data) were incorporated as base layers to assist in the geographic location of the critical habitat subunits. The coordinates or plot points or both on which each map is based are available to the public on <http://regulations.gov> at Docket No. FWS-R8-ES-2012-0100, on our Internet site (<http://www.fws.gov/sacramento>), and at the Sacramento Fish and Wildlife Office, 2800 Cottage Way Room W-2605, Sacramento CA 95825.

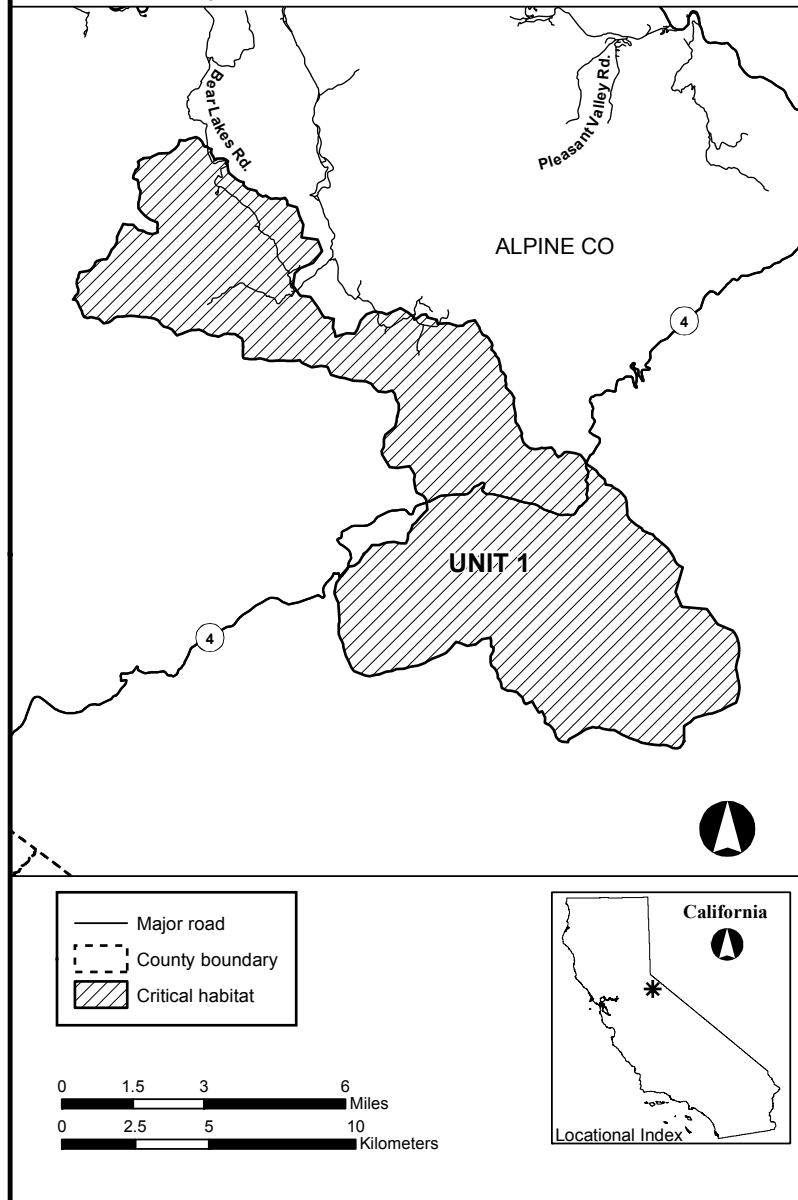
(5) Index map for Yosemite toad critical habitat follows:

# Yosemite Toad Critical Habitat Index Map



(6) Unit 1: Blue Lakes/Mokelumne, Alpine County, California. Map follows:

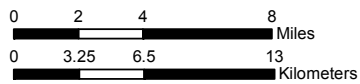
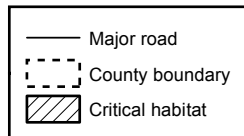
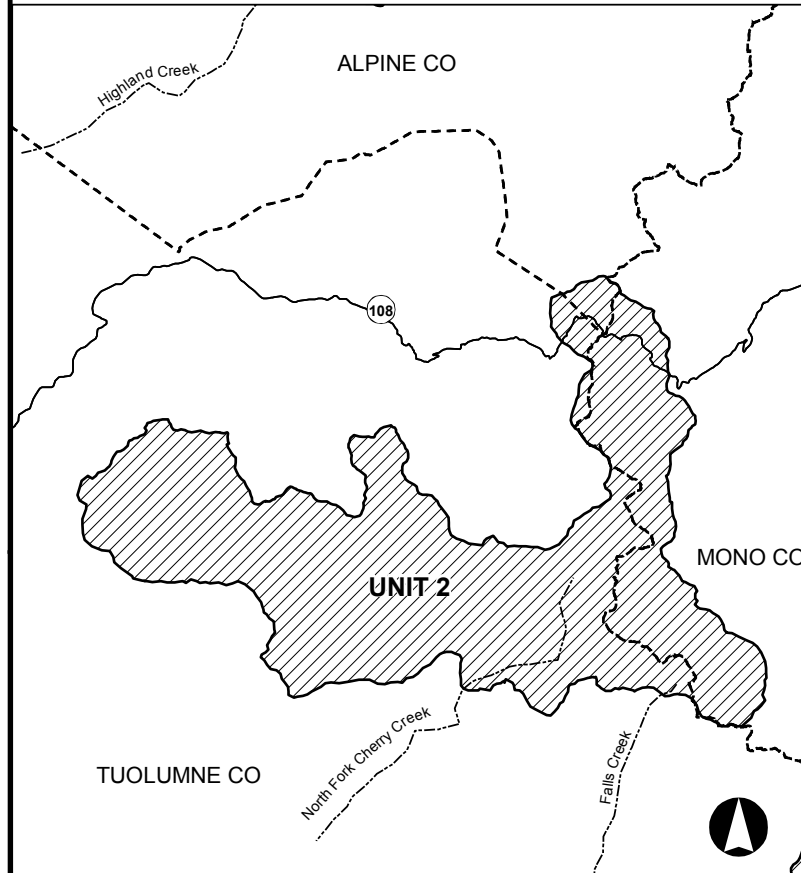
**Yosemite Toad Critical Habitat  
Unit 1 - Blue Lakes / Mokelumne  
Alpine County, California**





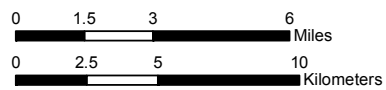
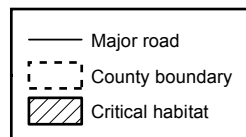
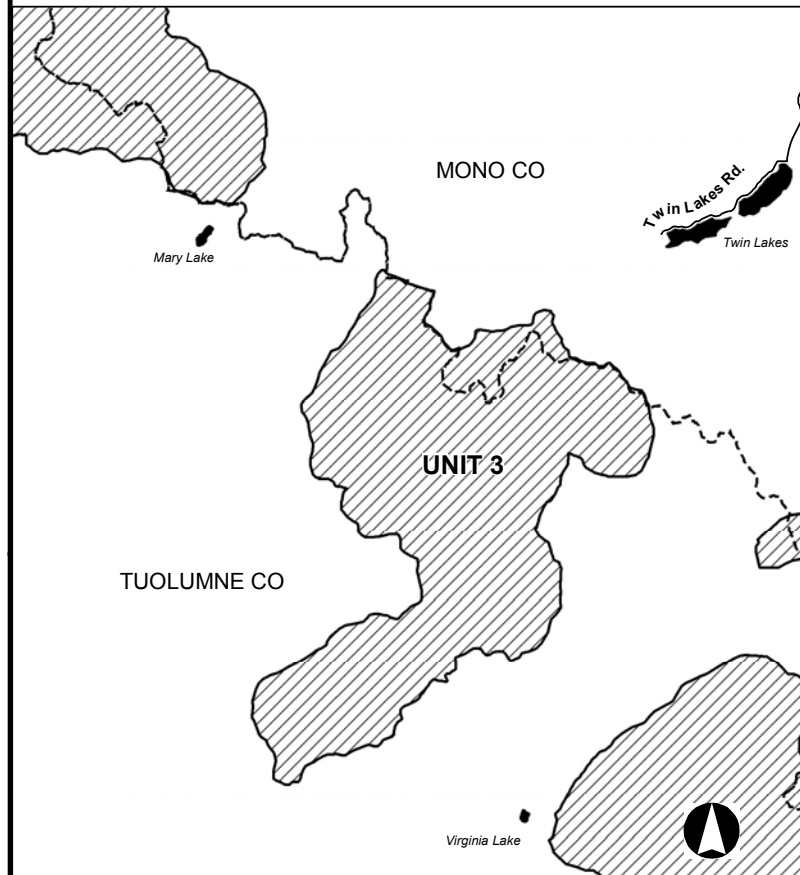
(7) Unit 2: Leavitt Lake/Emigrant, Alpine, Mono, and Tuolumne Counties,  
California. Map follows:

**Yosemite Toad Critical Habitat  
Unit 2 - Leavitt Lake / Emigrant  
Alpine, Mono, and Tuolumne Counties, California**



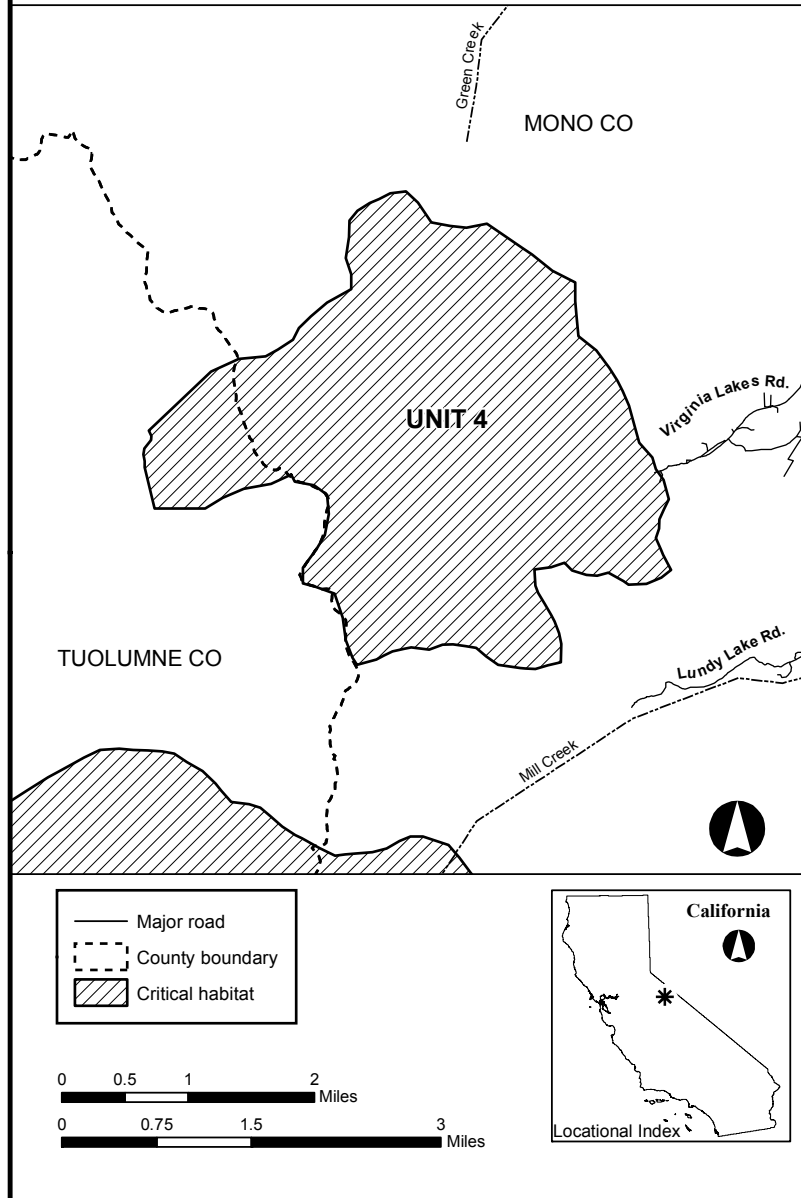
(8) Unit 3: Rogers Meadow, Mono and Tuolumne Counties, California. Map follows:

**Yosemite Toad Critical Habitat  
Unit 3 - Rogers Meadow  
Mono and Tuolumne Counties, California**



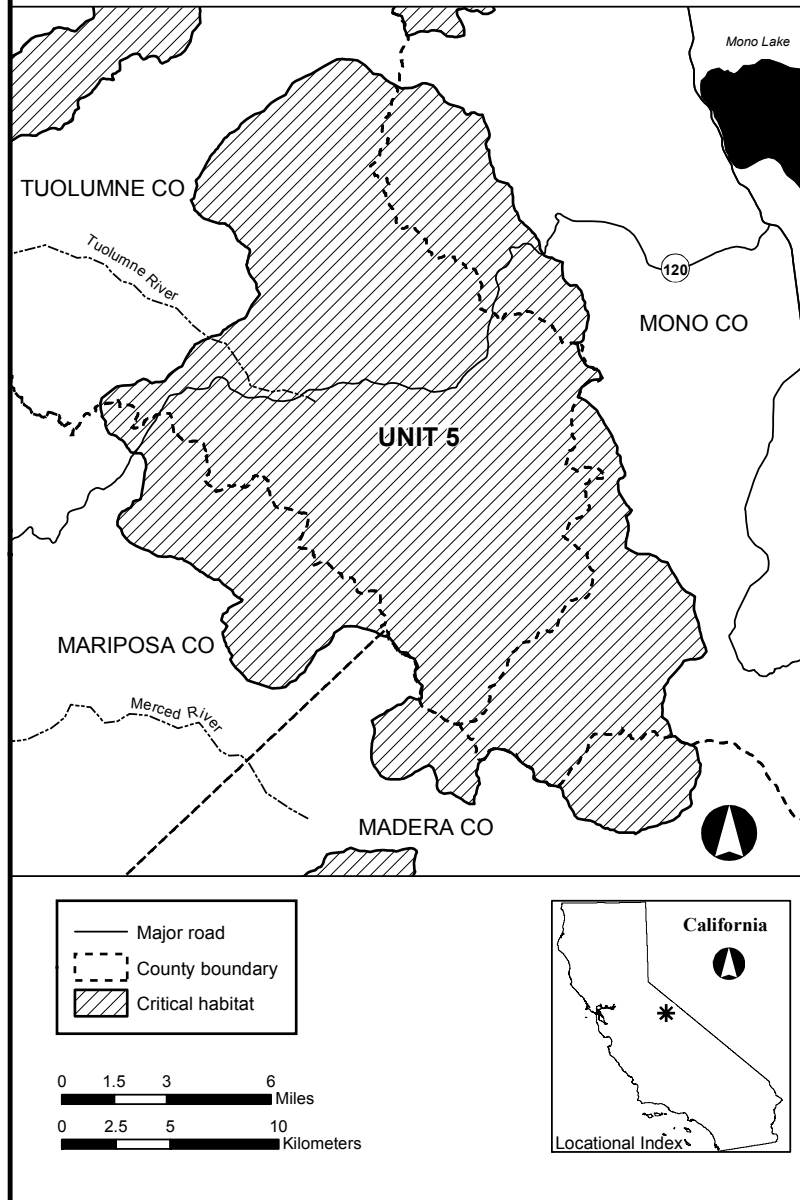
(9) Unit 4: Hoover Lakes, Mono and Tuolumne Counties, California. Map follows:

**Yosemite Toad Critical Habitat  
Unit 4 - Hoover Lakes  
Mono and Tuolumne Counties, California**



(10) Unit 5: Tuolumne Meadows/Cathedral, Madera, Mariposa, Mono, and Tuolumne Counties, California. Map follows:

**Yosemite Toad Critical Habitat  
Unit 5 - Tuolumne Meadows  
Madera, Mariposa, Mono, and Tuolumne Counties, California**

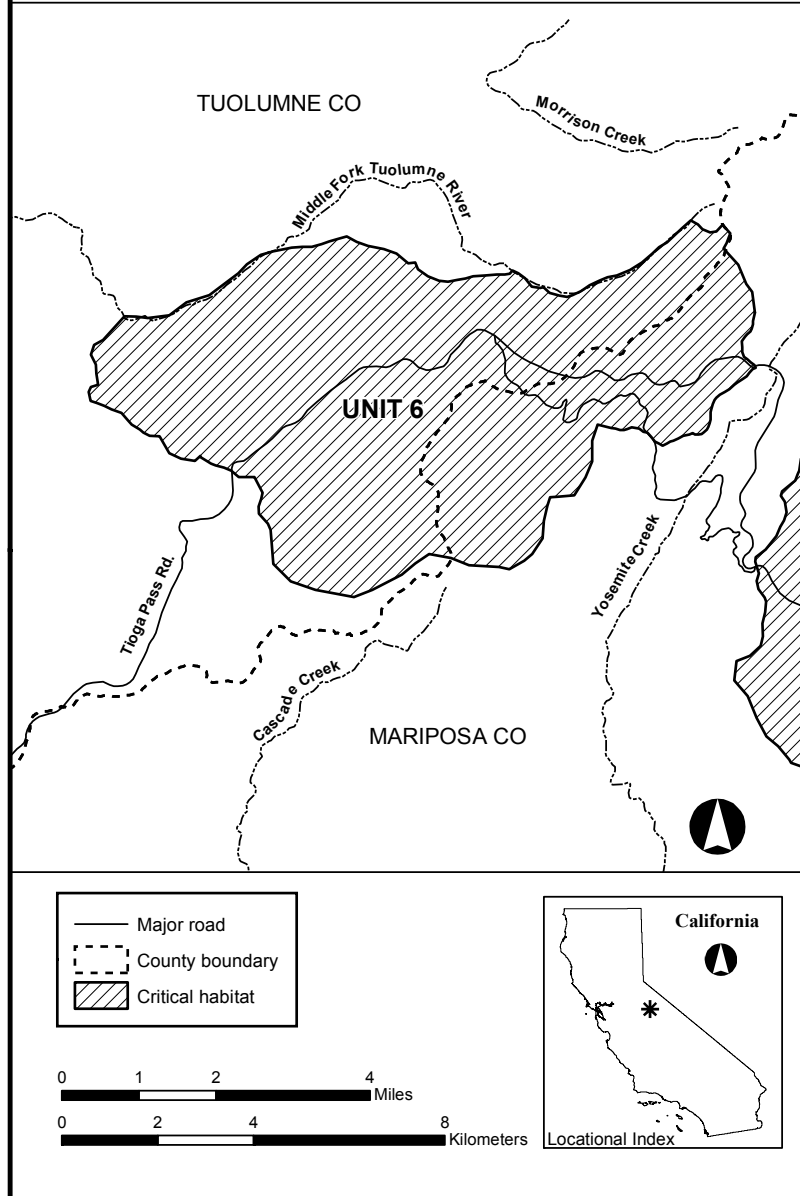




(11) Unit 6: McSwain Meadows, Mariposa and Tuolumne Counties, California.

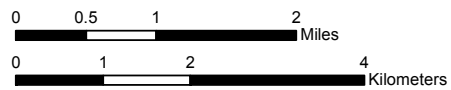
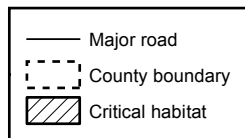
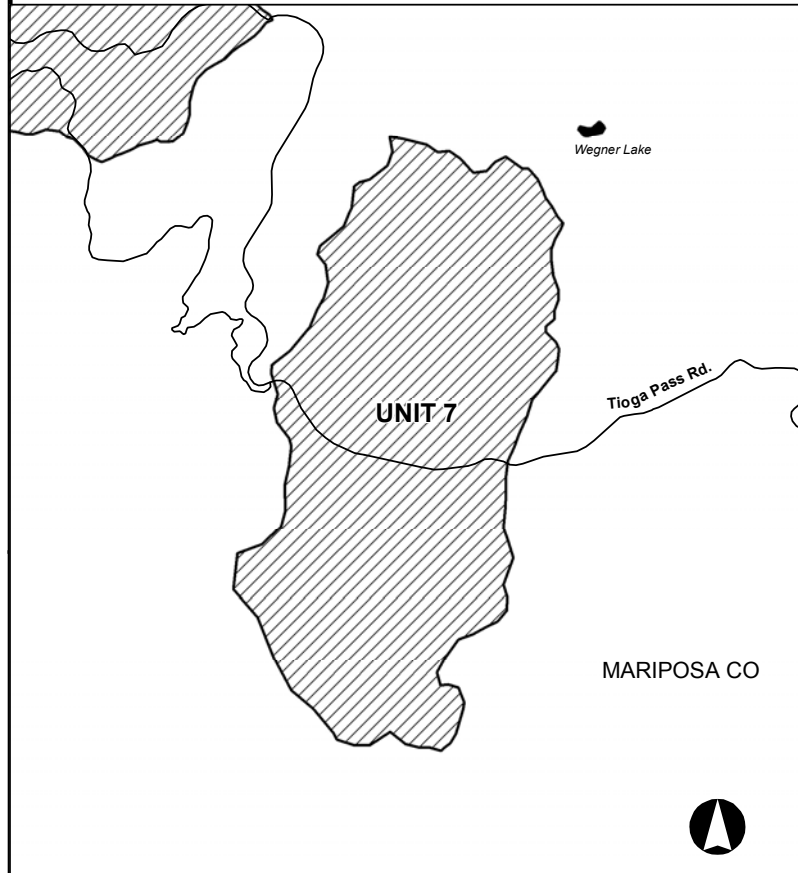
Map follows:

**Yosemite Toad Critical Habitat  
Unit 6 - McSwain Meadows  
Mariposa and Tuolumne Counties, California**



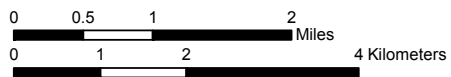
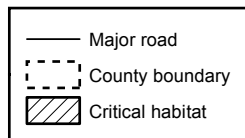
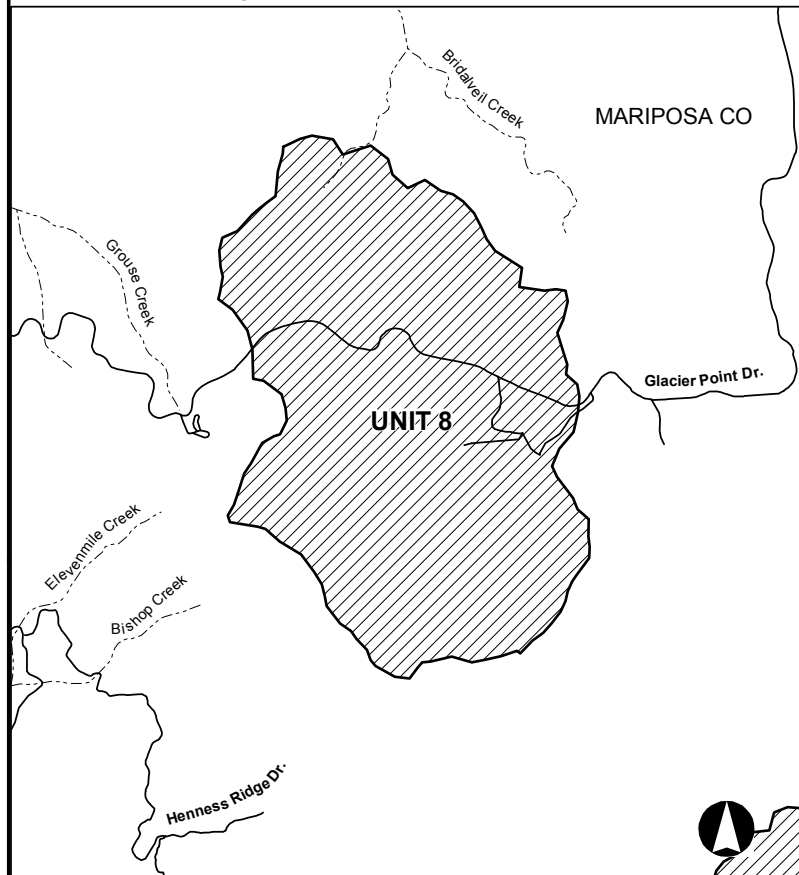
(12) Unit 7: Porcupine Flat, Mariposa County, California. Map follows:

**Yosemite Toad Critical Habitat  
Unit 7 - Porcupine Flat  
Mariposa County, California**



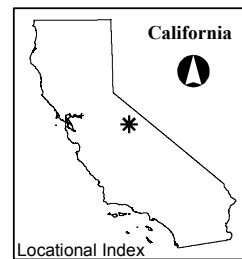
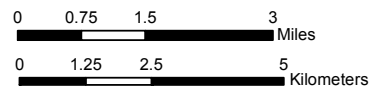
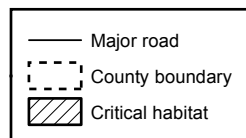
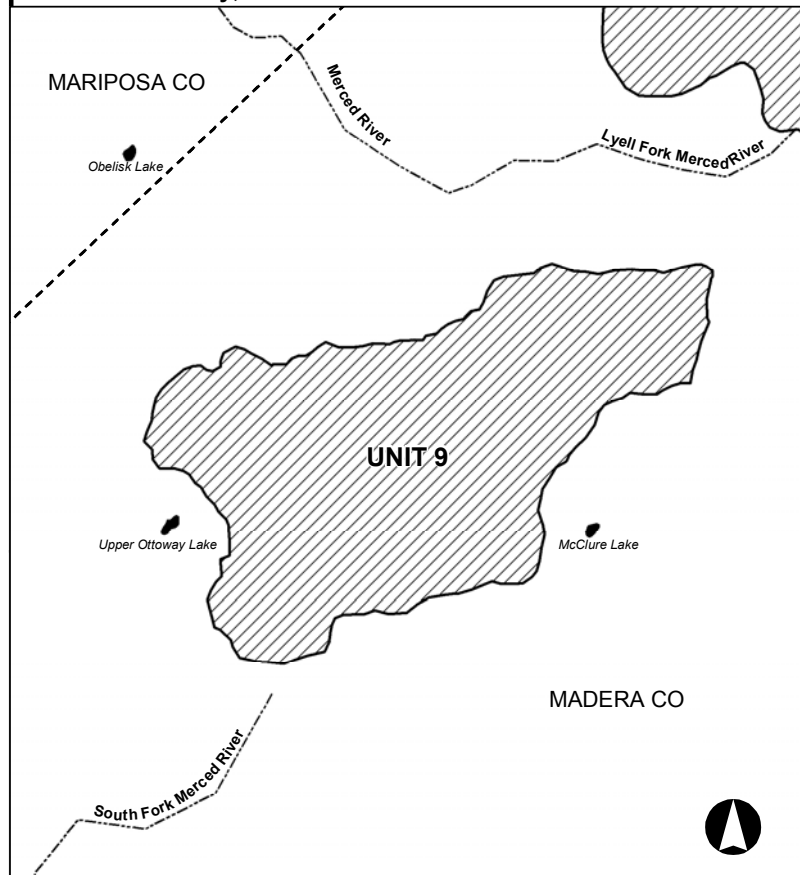
(13) Unit 8: Westfall Meadows, Mariposa County, California. Map follows:

**Yosemite Toad Critical Habitat  
Unit 8 - Westfall Meadows  
Mariposa County, California**



(14) Unit 9: Triple Peak, Madera County, California. Map follows:

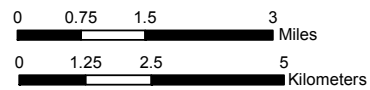
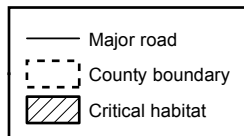
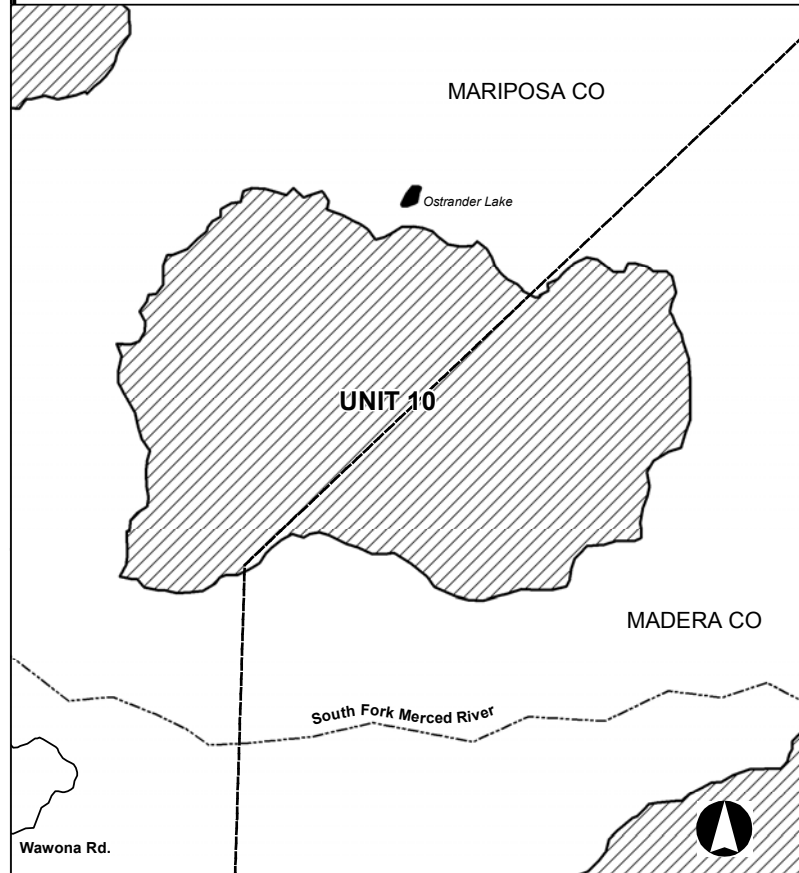
**Yosemite Toad Critical Habitat  
Unit 9 - Triple Peak  
Madera County, California**





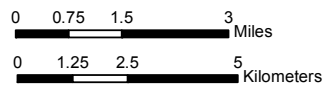
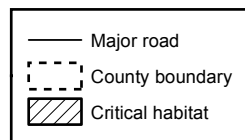
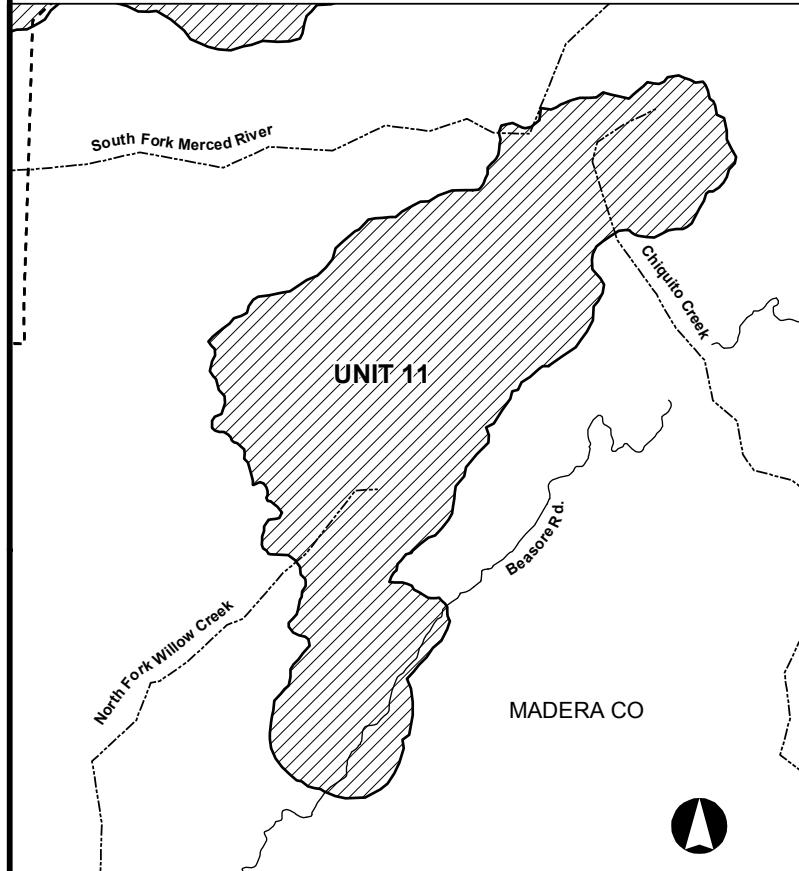
(15) Unit 10: Chino, Madera and Mariposa Counties, California. Map follows:

**Yosemite Toad Critical Habitat  
Unit 10 - Chilnualna  
Madera and Mariposa Counties, California**



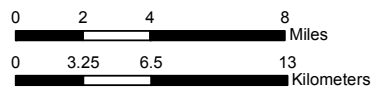
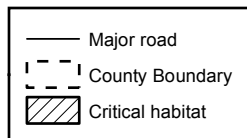
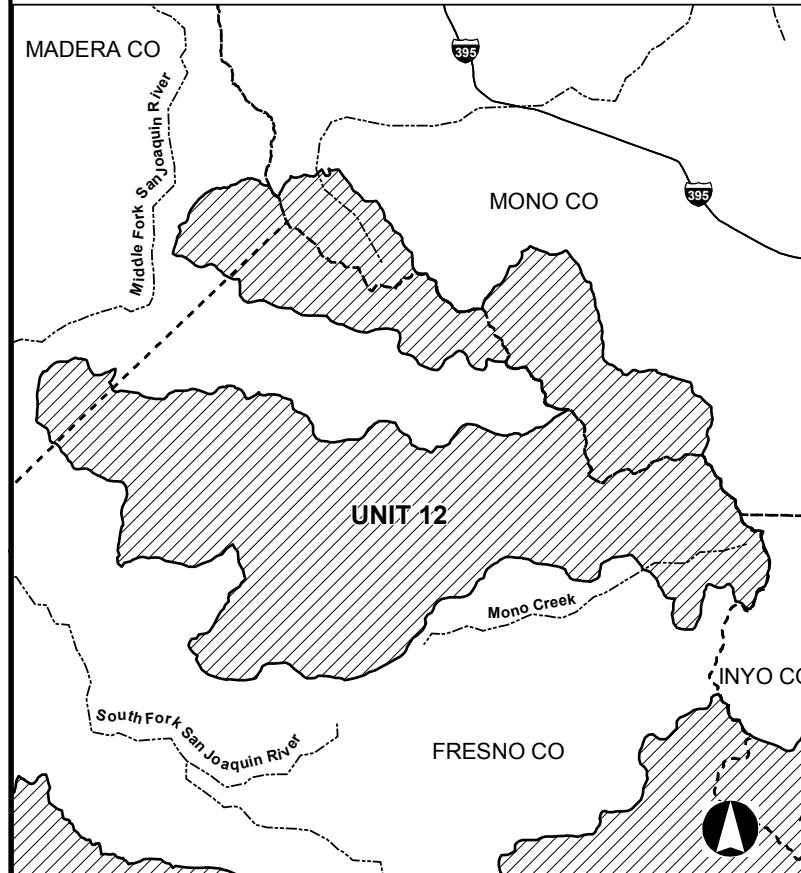
(16) Unit 11: Iron Mountain, Madera County, California. Map follows:

**Yosemite Toad Critical Habitat  
Unit 11- Iron Mountain  
Madera County, California**



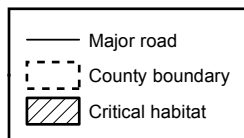
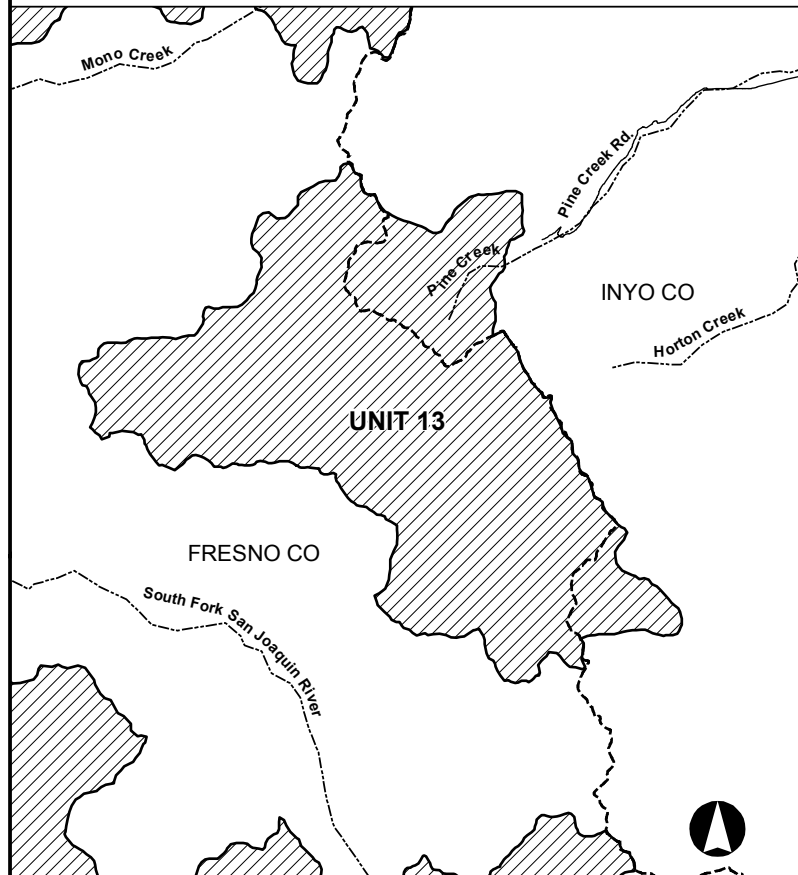
(17) Unit 12: Silver Divide, Fresno, Inyo, Madera, and Mono Counties,  
California. Map follows:

**Yosemite Toad Critical Habitat  
Unit 12 - Silver Divide  
Fresno, Inyo, Madera, and Mono Counties, California**



(18) Unit 13: Humphrys Basin/Seven Gables, Fresno and Inyo Counties,  
California. Map follows:

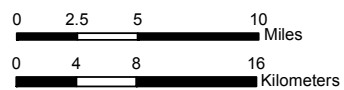
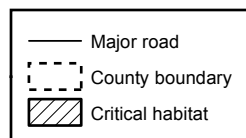
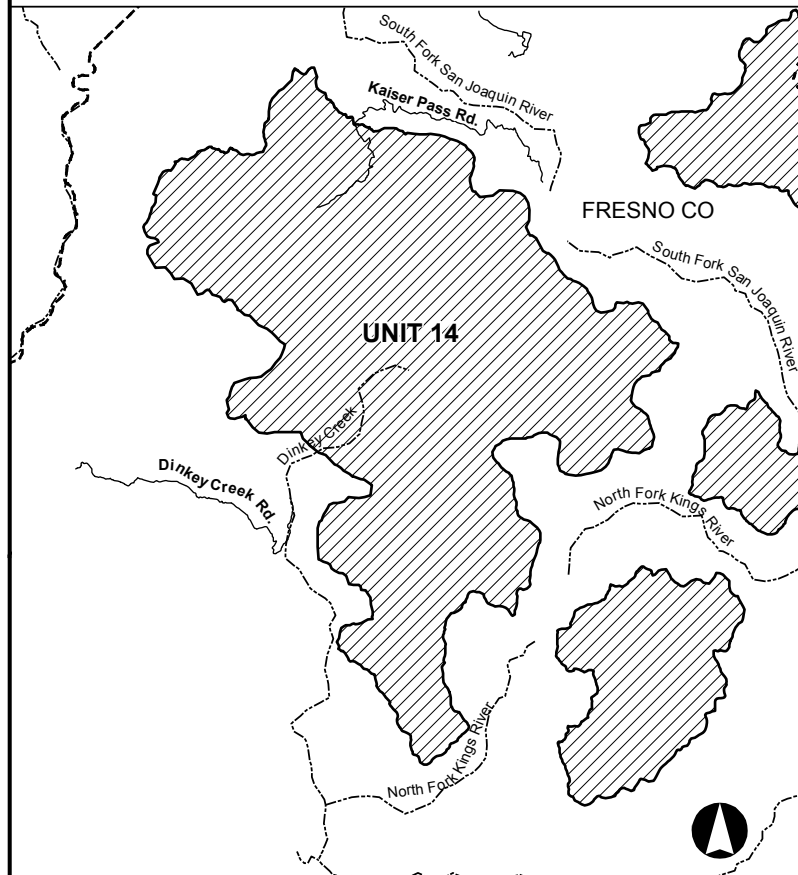
**Yosemite Toad Critical Habitat  
Unit 13 - Humphreys Basin / Seven Gables  
Fresno and Inyo Counties, California**





(19) Unit 14:Kaiser/Dusy,Fresno County, California. Map follows:

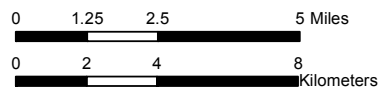
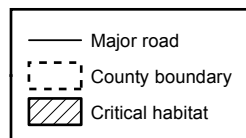
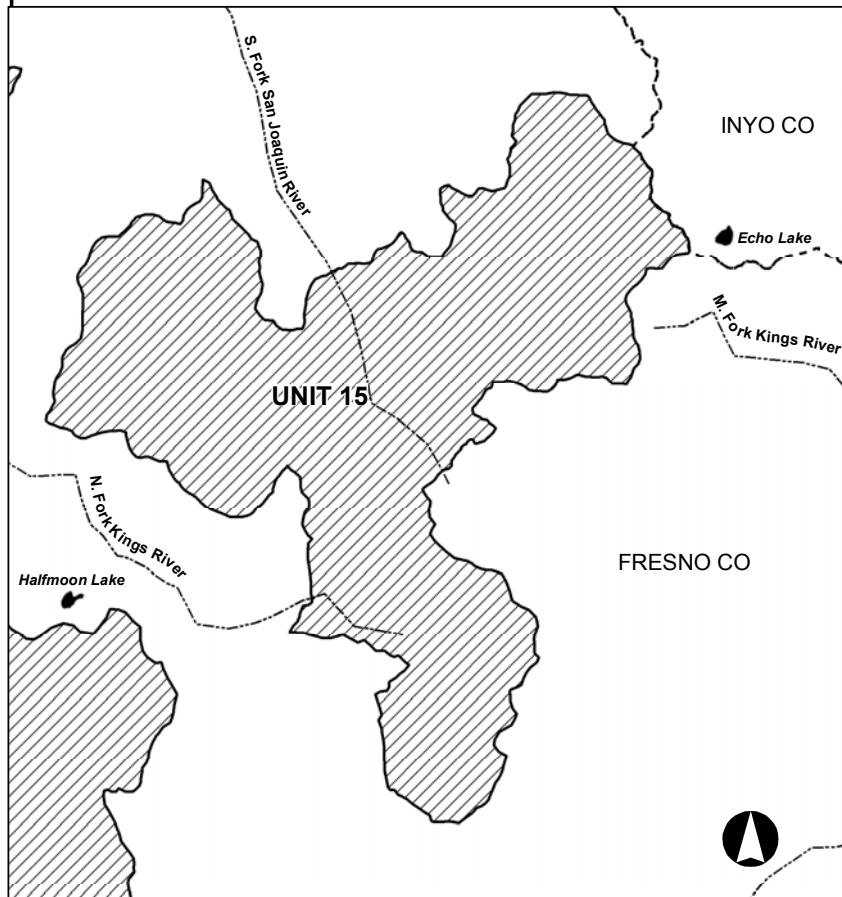
**Yosemite Toad Critical Habitat  
Unit 14 - Kaiser/Dusy  
Fresno County, California**



(20) Unit 15: Upper Goddard Canyon, Fresno and Inyo Counties, California.

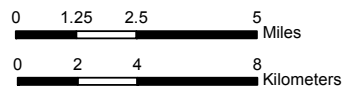
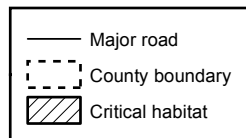
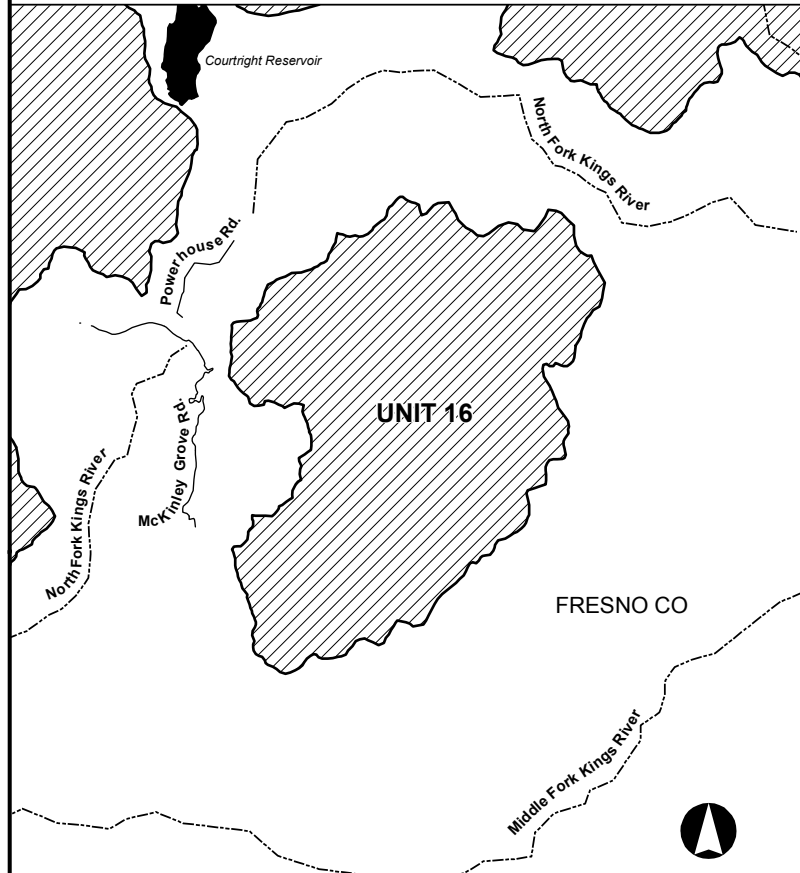
Map follows:

**Yosemite Toad Critical Habitat  
Unit 15 - Upper Goddard Canyon  
Fresno and Inyo Counties, California**



(21) Unit 16: Round Corral Meadow, Fresno County, California. Map follows:

**Yosemite Toad Critical Habitat  
Unit 16 - Round Corral Meadow  
Fresno County, California**



\* \* \* \* \*

Dated: \_\_\_\_\_ April 12, 2013 \_\_\_\_\_

\_\_\_\_ Rachel Jacobson \_\_\_\_\_

Principal Deputy Assistant Secretary for Fish and Wildlife and Parks

~~**Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat  
for the Sierra Nevada Yellow-legged Frog (*Rana sierrae*), the Northern Distinct  
Population Segment of the Mountain Yellow-legged Frog (*Rana muscosa*), and the  
Yosemite Toad (*Anaxyrus canorus*),**~~

[FR Doc. 2013-09598 Filed 04/24/2013 at 8:45 am; Publication Date: 04/25/2013]